THE CULTIVATOR.

FORBES. VAN VRANKEN, N.Y.

THIRD — To Improve the Soil and the Mind. — SERIES.

VOL. II. — ALBANY, MAY, 1854. — No. V.

Will Ashes Dissolve Bones?

The above seems to be a mooted question with some of our agricultural papers. One correspondent affirms, and another denies, that ashes are a solvent for bones; and if the farmer, not knowing what to do, where doctors disagree, appeals to the editor, he gets an answer so near to the fence that he could hardly tell whether it were on one side or the other.

The question is one of some consequence, as bones occur about every farm-house, too many to be lost, but not in sufficient quantities to warrant the expense and trouble of procuring sulphuric acid for the purpose of converting them into superphosphate of lime, which is the best course, whenever there are bones enough to make it an object. The farmer, who has but a few, can turn them to a good account, in a less troublesome way.

If the question be asked, will ashes dissolve bones? the answer is, no, not in the proper sense of that term, not as water dissolves sugar or salt. But if it be asked whether ashes will reduce bones to a condition in which they will be speedily available to plants, the answer is, yes. The Hon. PHILIP PUSEY ascertained several years ago, and, after carefully experimenting upon the discovery three or four years, published in the Journal of the Royal Agricultural Society, that bones, if placed in a pile and covered over with wood ashes, the ashes of fossil coal, leached ashes, common soil, or sand even, will heat and crumble to powder. He showed, as the result of careful experiments, several times repeated, that bones treated in this way become a valuable manure; and upon the strength of his own experience, he recommended this course to English farmers.

A friend of ours, in whom we have entire confidence, informs us that seven years ago he fell into the practice of reducing bones by means of ashes, by a sort of fortunate blunder. Being at the head of a very large family, in which fresh meat was largely consumed, he found that his Irish cook was in the habit of throwing all the bones out of the back window. This drew such a bevy of dogs, with voices, bass, tenor and treble, about the house, that it was impossible to sleep quietly. In order to withdraw temptation from the dogs, and to preserve the bones for the use of his land, to be prepared in some way then unknown, he ordered the bones to be carried and put into an old sugar hogshead, placed in a grove at a little distance from the house, and the ashes from the kitchen to be thrown on them, the hogshead to be uncovered that the rain might fall into it. Whenever an offensive smell arose from the bones, which was only in dry times, he found that a little water thrown on prevented it. As soon as the first hogshead was full, another was placed by it and filled, and then another. His intention was to use the ashes and bones on Indian corn, supposing that by the next spring the bones would be somewhat softened, so much so that they might be pounded to pieces with a sledge hammer on a flat stone. The hammer and the stone were actually procured for the purpose. But no bones were found, except near the top of the hogshead last filled. Instead of the bones, were found soft soponaceous masses, retaining the form and size of the original bones, but none of their hardness. They were easily cut through with a shovel and mixed with the ashes; and when so mixed and applied to corn at the rate of half a pint to the hill, they proved an excellent manure for corn. The experiment has been repeated every year since with good effect, not only producing great crops of corn, but manifestly leaving the ground in good order for a succeeding crop, with but very little yard manure, not more than a quarter of what would be regarded as a fair dressing, say from three to four loads to the acre. The land is a light loam, and has been under the plow incessantly for more than twenty years, bearing for the last eight years hoed crops every year, generally corn and potatoes alternately, but some of the time corn two years in succession. As yet this land shows no diminution of crops, but rather an increase. In 1851 a comparison was instituted between bone earth procured in market at 2½ cents per pound, the best Peruvian guano, and this mixture of bones and ashes. The quantity of the bone earth and of the guano applied to the hill was just half that of the bones reduced by ashes. The effect of the bone earth procured in market was barely perceptible as compared with rows that were unmanured; the effect of the guano and of the home-made bone earth (the bones reduced by ashes) was very striking, that of the guano being more manifest in June and July, but that of the bones with ashes giving decidedly the best crop in October.

The friend who has communicated the foregoing facts, gives the following, as what he believes the true theory of the action of moistened ashes on bones, and of the influence of the mixture thus formed on crops.

Bones are about one-third organic, and about two-thirds inorganic matter, the former consisting of oil and glue; the latter mostly of phosphate of lime, with a very little carbonate of lime. It is a well-known fact, that if you put a bone into a strong ley and let it remain a few weeks, the potash of the ley will combine with the organic part of the bone, forming with it soap; the earthy part, principally phosphate of lime, will retain essentially the form and appearance of the original bone; but if examined closely, will be found to have lost its texture; and if mixed with any dry substance, as clay, loam, or peat, may be easily crumbled with it into a powdery mass. This is very similar to the process of reducing bones by ashes Were the bones to be put into dry ashes, they would heat, as in Mr. Pusey's experiments, would crumble to pieces, and the organic part would escape in the form of ammonia and other gases. But if water be added, enough to keep the ashes moist, and to exclude in a great measure the entrance of air, then the organic part of the bones will combine with potash and water, forming soap, and will leave the inorganic part (the phosphate and carbonate of lime) in a state to be easily mixed with any dry substance in the form of an impalpably fine powder; and although the phosphate may not have become as soluble as when changed to a superphosphate by sulphuric acid, yet owing to the minuteness of its division, it seems to be sufficiently soluble. The manure thus formed, containing all the ingredients of wood ashes and of bones, is found to influence the growth of the crop sufficiently early in the season, though not quite as promptly as guano, and to hold out and mature the seed perfectly. When composed of five or six parts by weight of hard wood ashes to one of bones, and kept in a cool place and sufficiently moist to prevent the escape of ammonia, it cannot be worth much if any less than half the price of Peruvian guano, as a manure for Indian corn.

Culture of Turneps, Rape, &c.

EDITORS CO. GENT.—Will you have the kindness to inform your correspondent, J. R. C., p. 136, *Country Gentleman*, that I grow turneps as follows:

I get the land in *fine* condition by repeated plowings and harrowings. In wet seasons this is sometimes difficult to get; but I would wait a few days rather than have my land lumpy after the last plowing. I then apply *lime* as follows: Four hogsheads, (60 bushels per acre, slaked)—each hogshead is slaked with one bucket of pickle, and covered with earth one foot deep, and used or spread after being in this state 24 hours, and harrowed in immediately after spreading (If near a gas-house, I apply two wagon loads of 40 bushels each per acre, with good result.) I then apply 20 loads of 40 bushels each of good stable manure, and harrow each way until I make all fine. I then spread three hundred of *guano*, mixed with one barrel of *salt*, and commence making drills 30 inches apart, turning lime, manure, guano and salt inside of drills. I then level the top of the drills with a rake, and sow immediately four pounds Skirving's Improved Swedish Turneps per acre. In *dry soil* the drills should not be *raised* as high as in *damp*.

I have always had from 600 up to 1,000 bushels of good sound turneps from the above culture—oats next year from 44 to 52 lbs. per bushel, and four tons of hay per acre after, of the best quality. On soil of good quality, 40 loads of stable manure would give a good crop, without any other fertilizer. But in our warm summers, the manner I apply manure is much better than the common way of applying in the drill and covering over. The *salt* is good in dry summers; and in case the guano is used, half the above quantity (or 20 loads) of manure will do. You also save the *covering* and *rolling* of drills by following my plan, which is an object in the turnep season.

I always sow from the 15th June to the 12th July—best time, last ten days of June.

After culture—from the repeated plowings and the late season of doing it, my ground is free from weeds. I generally run twice in each drill with a cultivator, and commence thinning when in the fourth leaf. Before the close I go through the drills again with a cultivator, with a view to kill the growing plants in space, which will be the case if thinned in wet weather.

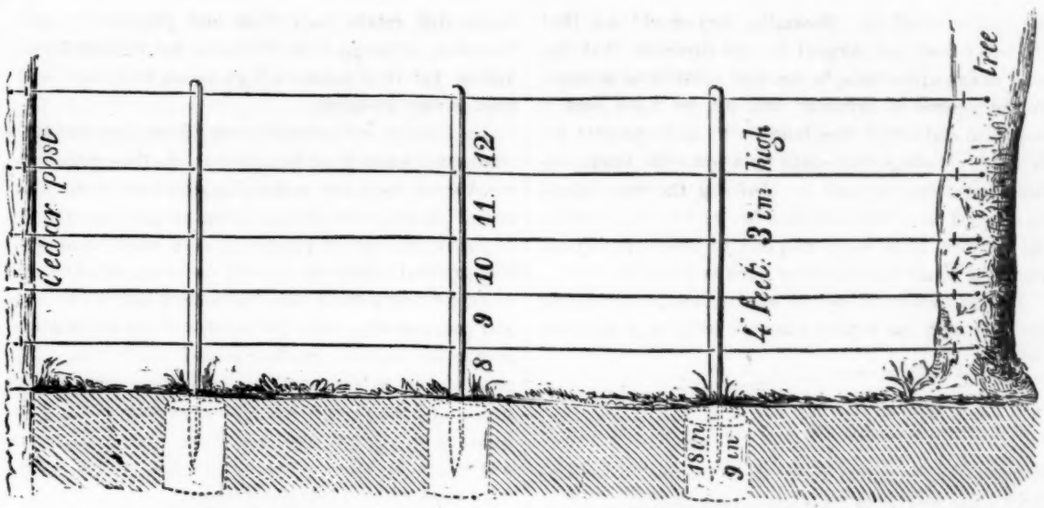
Pull and trim with any heavy edge tool that will sever the tops and bottom at one stroke. The top of an old scythe answers very well.

Your correspondent also asks about rape or cole. I do not advise any person to grow it for a crop, as the same culture would give a good crop if Swedes. I generally sow the ground when I dig early potatoes, say first twenty days of August. It makes growth about a foot high by the middle of October, and all kinds of stock are very fond of it. Our winters kill it out; but any kind of fallow land, sown in July, with two hundred guano, would give a good crop for feed. I could sell him one bushel for $4.

On same page you answer a subscriber from Fairton, N. J. I could sell him a buck coming one year old, bred from my buck Rumpy, and one of the ewes that obtained the Royal Ag. Society's prize at Norwich, both bred by Charles Large, Esq., England—price, $40. I could forward him to Boston, with the old sheep which I am exchanging with F. A. WIER, Esq., of Walpole, N. H. Yours, &c., J. H. REID. *Fredericton, New-Brunswick, March* 15, 1854.

Cure for Burns, Bruises, &c.

MESSRS. EDITORS—Having seen in your valuable paper, many good recipes, I take the liberty to send you an infallible cure for burns, cuts and bruises—*Tincture of Arnica*. I consider it the best for burns. It takes the fire out without leaving a blister; and the best remedy for cuts and bruises known. I have tried it and know it to be good E. H.



Wire Fences.

We promised lately to give some further information on the supject of wire fences. Those that have been erected of late years may be divided into two kinds, such as have succeeded, and those that have failed; in other words, the efficient and the worthless. The worthless have usually been made in the attempt to erect them at a low cost, or from twenty-five to fifty cents per rod, with slender wire, and with flimsy stiffeners. A wire fence of this sort, snapped and mutilated by the various rampant animals that have come in contact with it, and afterwards patched up with boards, rails, and brush, is not in our opinion the most ornamental and pleasing object in a rural landscape. We shall therefore dismiss at once the further consideration of this sort of barrier.

No person in this country has constructed and used wire fences with better success than HENRY W. SARGENT, Esq. of Fishkill Landing, N. Y. He published about four years ago in the Horticulturist, a very clear description of his mode of construction, from which we make the following extract:—

I take common bar iron, 1¼ inch wide and ¼ inch thick, and cutting it into lengths of 5 feet, I round off the heads, sharpen to a gradual point the feet, and then pierce it with five holes to receive the wire, at the distance of 8, 9, 10, 11 and 12 inches, which are the distances of the sheep and lamb hurdles in England.

These form the uprights, and are driven 9 inches into cedar, locust or chestnut posts, 18 inches long and 5 or 6 broad, which are placed immediately below the surface of the ground, leaving only the wire uprights to show above, and are heavily rammed down,—making them rather firmer (there being less resistance to wind and other ordinary pressure,) than posts set for common board or picket fence. These uprights are set 5 feet apart. 6 or 7 would, I presume, answer equally well; and after being plumbed, the wire is drawn through and fastened securely, in hundred feet lengths, to a stout post of cedar or other wood, unless one has the good luck to find a tree, which makes a much stronger and less visible finish. I find it difficult (using simply a crow-bar as a lever,) to draw the wire tight and straight, at distances much greater than 100 feet. The wire I employ is No. 4, about the thickness or a trifle larger than a common quill, and costs in New-York, at wholesale prices, 5½ per lb.; though I since learn it can be purchased at 4½ cents.

The cost of making the fence depends somewhat on the soil. In many soils, a common post-hole auger can be used. My soil being stony, the holes were dug, and cost 4 cents apiece. My cedar posts (18 inches long,) 7 cents each; making the cost of 100 feet of fence about $13.40, or about 13½ cents per foot as follows:—

20 uprights, weighing 5½ lbs. each, 110 lbs., at 4 cts.,	$4 40
500 feet wire, weighing 100 lbs., at 5½ cents,.....	5 50
20 cedar posts, digging holes, staples, &c.,.....	2 50
Labor putting up, two men half a day,.....	1 00
Per 100 feet,.....	$13 40

Of course, the expense is increased or diminished by increasing or diminishing the number of posts. In my woods, I run the wires from trees, and require only 5 to 10 uprights, instead of 20, as in the above estimate, and in some cases none at all: while upon my lawn, I have employed 25 to the 100 feet, in order to make the wires tight and straight. In my woods, I have ran over the fence with coal tar; upon my lawn, it is painted grass green.

In a late letter from H. W. SARGENT, he gives us the following valuable additional information: "*Formerly*, I should have stretched my wires from tree to tree, securing them to each tree at 10 to 20 feet distance by iron staples. The contraction and expansion of the wires however is such between winter and summer, that now I prefer attaching the two extremeties to some large tree, running the intermediate length through uprights such as I described in the Horticulturist, and screwing up each wire at each end with screws for this purpose, to be obtained at Longett & Griffing's, New-York. I unscrew them an inch or so at the approach of cold weather, to allow for the contraction of the iron. The wire is No. 4, annealed, although I believe No. 5 will do.

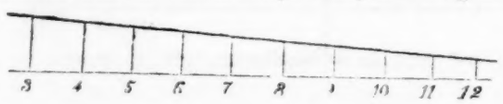
"*I have never had any fence broken by the most unruly animal, and I like them more and more each year.*

"I think that every 10 to 20 feet at least should be supported by an upright, otherwise the wires are apt to sag—my best fence has the uprights 6 feet apart."

Our readers, who propose to erect wire fences, should be very particular, *first*, to obtain *annealed* or telegraph wire, of the best quality. We have seen some very heavy wire fences snapped by large steers dashing blindly against them, when this precaution

was not attended to. *Secondly*, they should see that the outer posts are braced in the direction that the wire draws upon them, in the most substantial manner. In the absence of sufficient bracing, we have seen a beautiful and costly wire fence, with iron uprights set in stone, all swept over clean by a few colts unsuccessfully attempting to vault it. *Thirdly*, the wire should be of good size—not less than No. 4 or 5—fences without number have been snapped to fragments by attempting to use such cheaper sizes as 10 or 12.

For the benefit of such of our readers as may not be familiar with the various sizes, we subjoin a diagram



showing the diameters from three to twelve, indicated by the shorter or cross lines, very nearly.

Value of Ashes in Agriculture.

EDS. CO. GENT. AND CULTIVATOR—The following extract from a letter recieved by me, explains the origin of this article, which is also at your service for publication if you think desirable:—"Soliciting respectfully some information concerning the best and most profitable mode of using *ashes*, taking into consideration the kind of soil, also the crop, time to apply, quantity, management, &c., items of great importance to farmers." (Signed) Yours, &c., Rev. ——.

DEAR SIR—Yours of the 22d ult., making inquiries about the best method of using ashes as a manure, was duly received, and I am happy to oblige you with any information in my power.

The inorganic part of all plants (*i. e. the ash,*) although differing in some particulars, yet so uniformly contains the same leading elements, viz. lime, potash, soda, magnesia and phosphorus, that ashes must always be of some benefit to them all. However, in addition to furnishing these elementary bodies to plants, they have other beneficial action—as chemical, in rendering insoluble bodies soluble, neutralizing acids, inducing and aiding fermentation—or mechanical, as tending to loosen or solidify the soil. These various effects of course will depend upon the kind of soil to which they are applied and other attendant circumstances. If applied to sour or peaty soils containing much inert vegetable matter, its acids will be neutralized and decomposition promoted. But if the soil is sandy, the alkali will favor the solution of the silica, forming silicates so necessary to the growth of the straw of grain and grass.

As ashes have a tendency to liberate ammonia from its combinations, they should never be mixed with guano or any nitrogenous manure, unless absorbents are present in large quantity to retain it as soon as it is set free. This is readily shown by mixing a little ashes with moistened guano or in a heap of fresh barnyard manure.

As ashes are in part readily soluble, they ought to be applied only during the growing season. Leached ashes still retain their lime and phosphoric acid; therefore, although their effects are not so immediately visible, yet they possess a high value, and their influence is very enduring.

The locality and circumstances alone must decide to what crops ashes must be applied. As they contain no weed seeds, they are a favorite dressing for all hoed crops. Mixed with plaster, in the proportions of three of ashes and one of plaster, I have used them with the greatest apparent benefit on corn, potatoes and roots, putting a small handful on each hill of the corn and potatoes when they first appear above ground, and sowing the mixture on turneps and other roots. The color of the leaves soon changes to a richer, darker green, and the plant assumes an appearance of greater luxuriance. Carrot and beet seed, soaked 24 hours, and rolled in ashes, come up stronger, and of a finer color than without the application.

By the use of ashes on cold, damp meadow, the moss is eradicated, as the increased growth of the valuable grasses soon overpowers it; but thorough draining must also be employed to produce permanent results. In making composts, which consist mostly of turf or peat, ashes are very valuable, as they aid much in decomposing such bodies.

I have had no experience in the use of ashes on light sandy land, but have no doubt of their high value there also. As a manure for fruit trees they are invaluable, containing as they do, all the inorganic materials they need, without the nitrogenous bodies stimulating to over luxuriance.

Ashes differ very much in their character and qualities, depending on the kind of wood from which they are made, and the circumstances under which it is burnt. When they are formed in a common stove and removed daily, there will remain many fragments of charcoal, largely increasing the bulk made from a given quantity of wood. A cord of wood thus managed, may yield a barrel or more, while burnt in an air tight stove where the ashes are rarely removed, it would not make a half bushel; these last, possessing equal strength, would be nearly as valuable as the more bulky product, but some caution must be used in their application to small and delicate plants, or they will be bitten, and perhaps destroyed by their causticity. The silicates may also become partially vitrified by the burning, and will be heavy like sand; in this case their action will be slower and more durable, but their actual value will remain.

Ashes are advantageously used for the destruction of insects, and protection of plants from their ravages. The slimy snail, which strips the green from the leaf of our fruit trees, leaving the fibrous part, is destroyed by throwing ashes upon the leaves when wet with dew or fog. By taking a small quantity at a time in a shovel, they may easily be thrown so as to cover the foliage of trees of considerable size.

A timely application of ashes will also to some degree save the young turneps and cabbages from the ravages of the little black beetles which attack them on their first appearance, causing them to grow less

instead of greater, and the seedsman to incur the charge of having sold bad seed.

Thus my dear sir, I have set down these thoughts as they have occurred, and in closing I would repeat, that I consider the effect of ashes and many other manures, as important in their chemical and mechanical effects on the soil, as in their directly furnishing food for plants; in fact operating somewhat like the small doses of medicine called by the faculty *alteratives*, which, though insignificant in themselves, may produce great results on the system. Yours, &c., T. S. Gold. *Cream Hill, March* 8, 1854.

Culture of Spring Wheat.

Messrs. Editors—Will you permit a few remarks on the questions proposed by "A New Subscriber," from one of your old subscribers, who has taken the Cultivator from its infancy, now more than twenty years.

I have raised spring wheat for fifteen or twenty years, without missing I believe a single year. It was formerly thought we could not get a crop in our town, it grew so rank and blasted; but for fifteen years I have had but one crop blasted, and that only partially.

The answer given for a fair crop, (in the communication alluded to,) was stated at "about twenty bushels per acre." As this small amount might prevent some from making a trial of it, I will state that I have not raised so light an average crop for fifteen years, except one year.

I have taken three first premiums in our county, for from thirty to thirty-two bushels.

I was taught to sow only one bushel to the acre, but by reading and practice, I found more to be necessary, until I increased to three bushels to the acre; but have found that there should never be less than two bushels, nor more than two bushels and a half sowed to the acre.

"The price (stated in the answer as above) was one York shilling less than winter wheat."

Now this cannot be fairly said to be the difference in the wheat, but in the foul stuff mixed with the wheat. Some farmers think anything almost, will do to sow that is called spring wheat; but I have learned from your valuable Cultivator, that you must sow good clean seed, if you will have a good clean crop to harvest. Nothing but the largest kernels well screened, the pure wheat itself, will do for me to sow; and then I raise wheat that will command a price with the finest winter wheat. It is preferred with us for bread, to the finest western flour. I have sold from fifteen to thirty and forty bushels per year for seed, at from $1,50 to $2 per bushel, for many years past.

The mode of culture is the all-important consideration for the young farmer. You have taught me to plow deep, and to pulverize the earth as fine as possible, so that sometimes when my men say a piece of ground is harrowed sufficiently, I have double the labor expended which they thought sufficient.

Any land that you can raise good corn or potatoes upon, will grow good spring wheat. I manure for corn, with 20 to 25 loads of barn-yard manure to the acre—put on in the spring after the sod is turned under—harrowed until it becomes as fine and mellow as a drag can make it. Thus I raise, with lime, ashes and plaster, a large and profitable crop of corn.

But now comes the spring wheat, the best and most profitable crop I can raise. The stalk ground is plowed in the fall when quite dry, or as early in the spring as the ground will do to work—deep fine furrows—only one plowing, (but the labor of twice, as some do it;) and now comes what my neighbors say is the secret of my raising spring wheat. Some of them are yet so faithless that they will not try, while many are raising as good as I do.

I put on all the leached or unleached ashes I can get—if it is six, eight or ten loads to the acre, or if only a single load—spread evenly out of a wagon, then harrow it well. When this is done, it is ready for your seed; when sowed, put on your team and harrow and make it as mellow as an ash heap.

I have been thus lengthy and particular, as I know the difficulty of getting the generality of farmers to do it just right; for I have had the question put to me so often, "if you will warrant me as good a crop as you raise, I will buy your seed." I tell them I will, if they will do just as I say, but scarcely one in ten will.

But this is not all; I never have raised smutty wheat but one year, (at least for fifteen years past.) as I have invariably attended to preparing the seed myself, except this year. I must relate this anecdote to close.

I told my man to take the wheat, the salt and lime, prepare it, and sow it as I directed. He put the lime, the salt and water together, washed the wheat and sowed it. The crop was so smutty it almost destroyed the wheat. What was the cause of this I know not; but there is a right, and when the right way is found, it should be strictly adhered to, no matter by whom first discovered.

The right way then is, take your wheat—it must be the best seed wheat—make a very strong brine, pour in a half bushel of wheat at a time, wash and skim, and skim and wash until you *know* there is nothing but wheat—then pour off the brine in another tub, put the wheat in a box, and roll it in new slaked lime, as much as you can make adhere to the kernel—keep adding brine as you need, to cover the wheat, that it may be well saturated with salt

When you harvest it, keep it away from your oats, rye and buckwheat, or thresh it from the field, so that you know you have nothing but wheat to sell, and you will not need to sell for a shilling less than winter wheat, or be satisfied with less than thirty bushels to the acre.

If you are dissatisfied call on me, and I will show you what good bread my wife makes of it, (ah, and butter too,) and this with hundreds of other suggestions, for the garden as well as the farm, which we have learned from a constant perusal of your Cultivator. My neighbors ask me what I still want to take

the Cultivator for, when I am closing up my farming career. I tell them because I am not satisfied with present attainments, and would take it still, if nothing but a garden to cultivate. G. D. PHILLIPS. *Coventry, N. Y., March* 11, 1854.

Tobacco Culture in New-York.

MR. TUCKER—In answer to the inquiries of your correspondent, J. A. of Canajoharie, in regard to the culture of tobacco in the northern states, I would offer the following facts, as coming under my observation, during three years experience in cultivating this crop in Onondago county.

The kind of soil best adapted to the growth of this plant, is a sandy or gravelly one, which must be pretty highly manured; but any field, rich enough to grow a good crop of corn, will give a fair crop of tobacco. The proper system of culture is, to plow your land set apart for this crop early in the spring. (It should be land that has had some cultivated crop grown on it the year previous, as experience has proved it to be better than green sward, and not as liable to be infested with worms, which sometimes do much mischief in the early stages of its growth.) Plow again about the time you are ready to set the plants, and harrow it well. The plants should be five or six inches high, grown in a bed in the garden, or other warm rich place—sown as soon as the frost is out of the ground in the spring. Sow the seed on the ground, and spat it down hard with the back of a spade, or tread it over with your feet. A bed ten feet square, is sufficient to raise plants for an acre. The time for transplanting is from the 10th to the 25th of June. The best time to transplant is immediately after a rain. If the ground is very dry, it will be necessary to water the plants as you set them.

The ground should be marked in straight rows three feet apart, and slight hills made on these marks two feet six inches apart; then set the plants, which should be done well, taking care to press the earth firmly around the roots. As soon as the plants are started to growing, run the cultivator through, and follow with the hoe, resetting where the plants are missing. The crop should be hoed at least three times at proper intervals, taking care to hoe the ground all over. When the tobacco begins to blossom, the tops of the plants, and the suckers also, should be broken off, with some of the smaller leaves on the top of the plant. The suckers should all be broken off at the time of harvesting.

Harvesting commences the first of September, and ought to be finished by the middle of the month, as frost may be expected by that time. The stalks must be cut near the ground, and left in the sun a short time to wilt the leaves, then taken to the drying shed and hung on poles by means of strong twine, at the rate of thirty to forty plants to twelve feet of pole. The poles are to be laid across the beams about sixteen inches apart. The sheds are built high enough to hang three or four tiers, the beams being about four feet apart up and down. In this way a building forty feet by twenty-two, will cure one and a half acres of tobacco. The drying sheds should be supplied with several doors on either side to allow the free circulation of air in order to facilitate the process of curing.

It will be sufficiently cured in two or three months, when as much as is desirable is taken down in damp weather, laid in a pile, the buts of the stalks outward; the leaves are then stripped off and done up in small hanks by winding a leaf around it near the buts of the leaves. It is separated according to quality, making three qualities. It is then packed in a snug pile, the buts outward to give them a chance to dry well. Then to finish the process, it is packed in damp weather in boxes large enough to contain three or four cwt.

In the *Country Gentleman* of Feb. 23, 1854, J. A. will find an estimate of the cost per acre, of raising tobacco, to which estimate I should add about $10, making the expense of an acre of tobacco $77,50. A fair average yield per acre is 1,500 lbs. although 2,000 lbs. is sometimes raised. It is worth from seven to ten cents per lb. Growers in this vicinity sold the crop of 1852, for the latter price—the crop of 1853 is as yet unsold, but we expect to get as much as eight cents per lb. for it.

The kind of tobacco grown here, is, I believe, called "Connecticut Seed-leaf," which is quoted in New-York city papers, at five to fifteen cents per lb. according to quality. I presume J. A. could procure seed in this place at trifling cost. Yours, L. KEITH. *Liverpool, March* 6, 1854.

Dear Sir—Your correspondent will find a very complete essay on the Culture of Tobacco, in the Patent Office Report for the years 1849—1850. I have experimented very successfully in that line, and can furnish him with seed of three or four different varieties, one of which is fresh—i. e., not raised here from foreign seed, but the Cuba seed sent to me by a friend, direct from that Island. P. A. WAY. *Sewickley Valley, Alleghany county, Pa., March* 9, '54.

Buckwheat and Indian Corn.

MESSRS. EDITORS—The article from "Vermonter," on the Culture of Indian Corn, agrees perfectly with my own experience relative to raising corn after a crop of buckwheat. Fifteen or twenty years ago, I raised buckwheat several seasons, by turning over the sod in the spring, and sowing to buckwheat. The following season it was planted with corn. Though the land had become very light and mellow from the influence of the buckwheat crop, yet I could not, and never did get a decent crop of corn in this way. I came fully to the conclusion that the mischief-maker was the buckwheat. The expression of my father was, "it poisoned the ground for corn." I do not, like many others, conclude that it is one of our most exhausting crops. In my opinion it is quite otherwise. I continue to raise it, but put it on the same ground every year. I usually plow in the stubble late in the fall. I plow again a short time before sowing, and spread on a light coat of manure. This gives me a fair crop every year on the same ground. I think it quite valuable for feeding fowls, and mixed with other kinds of grain, for feeding hogs.

I have recently made an experiment with tallow and oil, in order to ascertain which is the most economical for lighting our dwellings. Did I know the readers of the Cultivator would be interested in the result, I would cheerfully give it. [We shall be glad to receive it.—EDS.] WM. N. FORD. *Feb.* 15, 1854.

Discrepant Opinions.

At a late discussion on the value of roots for feeding cows, before one of the Agricultural meetings at Boston, several interesting statements were made. J. W. PROCTOR said the product of the carrot crop was 16 to 20 tons to the acre—and the value in market was half that of hay—making a good acre of carrots equal to 10 tons of hay. Col. LINCOLN and others had found carrots to increase the quantity of milk; and another gentleman had found them to produce as much butter from his cows in October as in summer. He had fed for two weeks on carrots; then for two weeks on ruta-bagas—he could see no difference in the results. His cows did not eat more than half as much fodder when supplied with roots. On the other hand, RUSSELL, of Pittsfield, had tried turneps three or four years, and he thought cattle eat more hay when they had roots than without them. He had tried carrots and held much the same opinion with regard to them. PORTER, of Bradford, thought carrots good food for cows, but did not think they increased the measure of milk. S. SPRAGUE thought that turneps do not fatten cattle. Another person fed turneps to two cows; one fattened, the other did not.

Now, what is the reason of these discrepant opinions? Simply the want of precision and accuracy. This is the great cause of all the diversity of opinion among farmers on agricultural subjects. The quantity of roots given is *guessed* at—the quantity of hay consumed is estimated as loosely—the measure of milk yielded is stated merely to be increased—and one or two experiments perhaps, conducted in this unsatisfactory manner, are made to constitute the ground-work of an opinion, which is ever afterwards held with much tenacity. When shall we see an accurate system of weighing and measuring, in the performance of experiments, in connexion with a close observation of all controlling causes; and a repetition of trial so often and so diversified as to remove all doubt as to the operation of accidental influences?

High Prices for Grain.

MESSRS. EDITORS—The farming community seems very generally to cherish an expectation that grain of all kinds will command high prices for a year or more to come; and, consequently, that raising as much grain as possible this next summer will be the most profitable kind of farming. The most of those with whom I have conversed on this subject, seem to have been indebted to an article in a recent number of the New-York Weekly Tribune for suggestions which have led them to plan the putting in of large crops of all kinds of grain this spring. The expectation of continued high prices seems to be based mainly upon these two facts: first, that in Europe immense numbers will be withdrawn from agricultural pursuits on account of the warlike condition of nearly every country there; and, secondly, that in this country there will be a scarcity of help for farmers, and at the same time an increased demand for grain and other farm products on account of the immense number of hands employed, and to be employed, in building railroads. The advice of the Tribune, based upon these facts, is that their country friends should prepare for a great spring crop; that they should sow all the oats they can get into the ground in good order and in proper season; that they should then plant corn upon every acre they can spare and get ready for that crop; and that, later in the season, they should sow as much buckwheat, turneps, and corn for fodder as possible, that they may be able to sell a large portion of all the grain produced. Spring wheat, beans, peas and potatoes will all secure good prices, and should, therefore, be raised this next season as extensively as possible.

These are wise and seasonable suggestions. We wish to make one more, having the same object in view. We have noticed a good many pieces and patches of winter wheat which look very yellow and sickly this spring. We are confident from what we have seen of the effects of sowing plaster on wheat in the spring, that these patches which look so pale and sickly, and which will yield but a very small crop, will be very generally restored to a good healthy green color by an early application of plaster. Even those fields or parts of fields which now look green and healthy would probably take on a healthier growth from the application of a little plaster. But we have repeatedly observed that pieces of wheat which seemed almost winter-killed, which were very yellow and sickly looking in the spring, were soon restored to a healthy color and a rapid growth by the application of a bushel to half a bushel of gypsum to the acre.

Now, if by sowing about this amount of plaster on fields or patches of fields of wheat which look sickly, and which, probably, would not yield as much as ten bushels to the acre, they can be revived and invigorated so as to be made to yield twenty or more bushels, the farmer who applies it will obviously receive very ample compensation for his outlay, time and trouble. A few bushels of wheat at present prices would reward him bountifully. While, then, the farmer gives all time and attention possible to spring crops, let him not neglect the wheat now in the ground.

The plaster may be applied with the most advantage when first we have warmth enough to cause wheat or grass to start a little. OBSERVER.

Rotting of Fence Posts.

MESSRS. EDITORS—A few days ago we witnessed on a neighboring farm a post and board fence, part of which was lopping over badly in consequence of the rotting of some of the posts. Upon further examination and conversation with our neighbor, we ascertained that the part of the fence which threatened to fall was made by having the post placed butt end downward. Another part of the same fence was made by placing the top end in the ground, and none of these posts have rotted nearly as extensively as those which were set the other way. I mention the fact as an additional confirmation of an opinion which is becoming every year more general, that posts will last a third or a half longer when set with the butt end upwards than when set the other way. O.

Gravel Houses.

The constant advance in the price of timber has lead to inquiries in regard to other materials for building houses, so as to bring the cost within the means of the masses wanting houses. In some sections houses are constructed of small stones laid in a mould filled in with mortar, which is smoothed on each side to form the out and inside of the house; on the top of this wall the plate is laid even with a roof in the Italian style. This kind of house is unknown in this vicinity although the abundance of stones and sand, and the almost entire absence of pine timber, would seem to render it well adapted to the locality.

Can you furnish in the Cultivator any information as to the comfort, durability and cost of said houses? Are they damp or liable to be injured by freezing? What sized stones are best adapted, and what other materials would be required for the walls of a house, say 30 feet square, and 16 feet high? What thickness would be necessary and what amount of labor to build them? R. N. M. *Gales Ferry, Ct.*

We have been informed by several persons who have enjoyed the advantages of observation, or who have had practical experience, that these houses as commonly built have proved a failure after a few years trial, and in some instances have been torn down and replaced with wood structures. Fowler & Wells have published a book in favor of this mode of building, and give minute directions for the whole process, to which our correspondent is referred for further information—but we cannot commend the plan. Building with cobble-stones, as usually practiced, is quite a different thing, and is cheap, durable, and good.

Draining Tile and Pipe.

LUTHER TUCKER, ESQ.—I notice in your last *Country Gentleman*, you wish my opinion whether tile or pipe are best for drains. So far as I have seen, there appears to be no difference. I have used but very few pipe. When I imported tile for patterns, pipe was not known for drains; therefore I began with tile, and they answering all purposes, I never made a change—only when I could not get tile I used pipe if to be got, and they do well enough. I laid from 39,000 to 40,000 tile last season. I have a few on the ground now, to put in this spring. One of my neighbors has about 20,000 tile now in his fields, and is at work digging ditches. Tiles and pipes have not been half as fast made as wanted for the last two years. Some of the makers are enlarging their works, and intend making double the quantity they formerly made; still I don't think they will then be able to supply the demand. Farmers are beginning to see that it is indispensably necessary to drain the land; and the whole ought to be drained, or at least with very few exceptions. I drain almost every part of the field now; at first I only drained the wet, or that I thought wet; but I soon found that a great proportion of that thought dry would pay well for draining. What I have done in the last eight years, I think will require no more draining.

We have now fine weather. Wheat looks as well as could be wished. Should we have favorable weather we shall have an early harvest; and unless we should after this have frosts and thaws, wheat will not be winter-killed. Still, wheat on drained land, even this spring, has greatly the advantage of that on undrained land. Yours respectfully, JOHN JOHNSTON. *Near Geneva, March* 17, 1854.

Notes on Various Matters.

MESSRS. EDITORS—Feeling myself largely indebted to the Cultivator, I send you a few "Notes," which, if they are of value, may be followed by a few more. [The more the better.—EDS.]

DOMESTIC GUANO.

The droppings from the hen-roost, if carefully preserved and properly applied, we find a most valuable addition to our stock of manures. For the saving of it we have a roosting place partitioned off in the upper part of a shed for which a tight floor is laid, open at the back side, under which a large and rather shallow box is built, into which receptacle ashes, lime, plaster, and any thing of the kind is from time to time mixed with the cleanings from the floor above. This, at the time of corn planting, is drawn out, and a small handful dropped in each hill, being careful at the planting to draw a little dirt over it as the corn is dropped, as if it comes in immediate contact with the corn it will in most cases destroy the young sprout. This I consider a better way than to mix with loam before dropping in the hill, as it is less bulky, and the planter who drops his own seed can draw on a little earth before dropping his corn, with no trouble at all. I have had better corn, manured in this way, with no other manure, than from land adjoining, with quite a heavy coating in the usual way.

ASHES FOR THE PLUM.

A hint derived from your pages, saved me the last season a large crop of plums, the first we have had of any amount in some years. This was the sprinkling of dry ashes on the young fruit as recommended by one of your correspondents, to prevent the ravages of the curculio. Every morning or two, until the plums were full grown, the trees were well dusted, and the result was a bountiful crop of fine fruit. If any one has not tried it, let him do so the coming season.

USE OF POND MUD.

Some three or four years ago, as an experiment, we drew out of the bottom of a pond filled during the season with back-water from the canal, but dry in the spring, about fifty loads of mud, which was applied immediately to the land. For the first and second years it seemed to prove a decided injury, but after being turned up by the plow and subjected to the action of frost for one winter, the beneficial effects began to manifest themselves, and the best of our barn-yard manures have not produced so heavy a growth of grain, and the effect promises to be permanent. Probably a better way would have been to have piled it up for one year, or composted with other manure or with lime. R. MERCHANT.

GREAT CROP OF SUGAR.—I shall take the liberty to boast a little of a maple tree two feet three inches in diameter, standing on my farm in Hoosick, from which I made thirty-three pounds of sugar in the spring of 1852. ELIHU CROSS.

Wintering Cattle—$300 Saved.

We trust the writer of the following letter, a clergyman of Connecticut, will excuse us for giving it to our readers; and for expressing the hope also that he will frequently favor them with a chapter of his experience in rural affairs:—

Mr. Tucker—Last year I read with much interest, your excellent paper "*The Country Gentleman*," receiving it through an agent at Hartford. It was worth to me many times the amount of the subscription. Please accept my thanks for the ballance.

Now, though I am a minister, and spend most of my time in this calling, yet, being bred a farmer, and having in my hands a few acres of choice land—once the property of my grandfather who was also a minister, and in whose days it was no disparagement for a successor of Paul to imitate his example—I think it my duty and privilege rightly to improve my opportunity and my one talent for agriculture and horticulture. But how shall I do this without access to some such source of information as that of your paper? True, I could do as my father did, and he was a good farmer—many think good enough. But this does not satisfy me. Dr. Taylor used to say to us Theologs, that though he might not be so great a man in metaphysics as Dr Reid, or any one of his predecessors, yet standing on their shoulders, he ought to see further across the plain than they. So in every science, we *ought* to be wiser than our fathers. *Improvement* is the watchword of the age. It should be that of the farmer. I am glad to know that it is so with many. But I am sorry to see how many—very many there are in this state who *seem* never to have thought of such a thing.

Take one fact, for it is a fact. The value of manure wasted in this state this winter by allowing cattle to run at large in the streets and by the water courses, would have made every poor family in the state comfortable, in food, clothing and fuel, and leave a large surplus for other charities; to say nothing of the loss on poor, lean, shivering cows, the waste of fodder, &c. If it will not be considered as improper boasting, I will add by way of illustration, that I have made twice the manure with 12 head of cattle, that some have made with 30 head. And if the incredulous will come and look at my ten cows, inquire of my man how they have been fed, and how much milk they have given—look at the hay now in my barn, at the ground from which it was cut, and learn how much I have sold, I think he will admit that there is *some* advantage in housing and taking care of cattle in the winter. I do not hesitate to assert that it has been better for me by $300, to have my cows properly housed, fed, beded, and cared for generally, than it would have been to have had them running at large, trampling hay under their feet, and dropping manure about the fields and streets. Does any one doubt? My cows are worth $10 each more than they would have been = $100. I have $100 more value in manure. It has not cost as much to keep them by $50, and they have yielded at least $50 more value in milk. Indeed I think the last might be doubled.

But I am scribbling out of my line. I have sometimes thought I would say something to your readers. But I have little time, and others are doing well in this line.

Please send me the Country Gentleman for this year, commencing with January if possible. I want the back numbers if you have them, in order to make my sets complete. I ought to have written before, but my constant occupancy in another calling, must be my apology.

Sowing Plaster, Ashes, Potatoes, &c.

I saw in a late no. of your *Country Gentleman*, an inquiry about sowing plaster upon wheat in the fall. As I have tried that plan to my satisfaction, I am willing to add my mite to the great agricultural treasury. I have sown plaster at all seasons on wheat, as well as other grain and grass; and I find that when I roll the grain in plaster and slaked lime, equal parts, after having soaked the wheat in a strong brine for 24 hours, that it gives the grain a fair start, if sowed about the 10th or 15th of September. About the 20th of October, I sow one and a half bushels of plaster per acre, which gives another start to the roots as well as the blade, and will bring the grain to perfection for harvest from 10 to 15 days earlier than if the plaster is sown in the spring. The spring sowing of plaster on winter grain cannot be done to advantage early enough on account of the frozen ground and washing off—besides, it keeps it green too long. I think that I get one-fourth more grain when I sow the plaster in October than when sown in April or May. I raised 37½ bushels of screened wheat on one acre last year. I have tried it side by side, and any person could see the difference in passing the road.

I have found that my winter grain has generally been killed by the ice whenever it has covered the grain, and I tried an experiment to remove it. I had a quantity of ashes for sowing on grain and meadow, and whenever I found any ice I sowed it over with these dry ashes on a sunny day, and they soon removed the ice entirely, without any damage to the crop. I have found that a sowing of ashes on wheat was a great benefit at any time after the first of May till it blossoms.

I think if all farmers would use more ashes on their potatoes, they would have less rot among them, and a deal better crop for the table. One part plaster and two parts ashes, dropped on the potato in the hill, and then as many times after as one has it to spare to put on, *will pay*.

I think it the duty of every farmer to grow his own potatoes from the *ball seed*, and adapt them to his own soil. I don't think he would then have reason to complain of the *rot*. I have done so since 1847, and I have as healthy varieties of potatoes as can be found.

I enclose in this two seeds of the Albion pumpkin, taken from one of three that weighed together 350 lbs., from one seed, last year, without any extra effort. With care they will produce 8 or 10 hundred pounds per seed. D. A. Bulkley. *Stone Hill Farm, Williamstown, Mass., March* 7, 1854.

Experiments with the Curculio.

MESSRS. EDITORS—As an old subscriber to your paper, I take the liberty to give you my experience of the manners and habits of the plum-destroyer, the curculio, and I wish to say that *The Cultivator* has had no small share in bringing about my great success in saving my plums from their destruction.

I began at first by transplanting two trees of the Washington. They grew finely and blossomed freely, but I could get no fruit, for when about half grown they dropped off, and continued so to do from year to year. After many years' disappointment in this way, I prepared myself for the battle, with the determination to come off conqueror, which the sequel will disclose.

I furnished myself with a cloth three yards by two, of the cheap white cotton, and a stick about three feet long with a piece of an old rubber shoe fastened to one end to strike the tree or limbs, if large. Equipped with these materials, and a small boy to hold two corners of the cloth, I held one in my left hand, and the other I fastened around my neck with a string. I took the stick to jar the trees in my right hand. I continued to destroy them in this way, from time to time, for some four or five weeks with a good degree of success, until I had slain more than fourteen hundred of these destroyers, on about one dozen trees. I likewise caught some curculios on a few cherry trees near by, for I found they were not very particular whether they were plums or cherries. The result of this labor was, I had two bushels of fine plums from my Washington trees, and all my other trees bore profusely. I have continued this practice of destroying these insects, and have saved my fruit ever since, until the present time. But the best part of my story is, this plan has worked so well that I have comparatively little labor to perform, as they have mostly disappeared from my garden.

My plan is to begin to search for the insect when the plum is about as large as a marrowfat pea, and continue to take them as long as they are plenty, which generally lasts about three weeks; but they do their work of destruction mostly in a very few days. I have known them to destroy more fruit in one warm still day than all the rest of the season together; but as we know not when they get fully organized to do their mischief, we must watch for them. I search my trees twice or three times a week at first, but as they grow plentier I search the oftener, and at the time they are to be found in the greatest numbers, go over my trees two or three times a day. There is no danger of them in windy weather, that is when it blows quite fresh; and in cold rainy weather they move but little. I have never seen them fly far, yet I believe they emigrate some, but comparatively do little damage if we are faithful to look after them and destroy them.

I say understandingly, that if any man will spend two minutes' time, on an average, for each tree in a season, he will surely save his fruit. In fact, I have faithfully jarred two hundred trees, when the insect was plenty, in twenty minutes, my son holding the watch while I with a small boy performed the operation. After I have gone round my trees, I open my cloth and destroy the bugs with thumb and finger, which has proved very effectual. I have tried all nostrums of the day and found them ineffectual. I have taken the worm from the plum, when but a few days old, and placed him in fine salt, in strong brine, in vinegar, and the like, and examined him with a good glass for some time, but he would not die until the application of thumb and finger, which has always proved efficient.

I believe I have killed more trees with salt than insects.

Last year my crop of plums would have been from 75 to 100 bushels, if it had not been for the heavy rains in August and September, which caused many of them to crack and rot on the trees.

I send you the number of insects taken each year, from 1847 until 1853. I could have told you how many I took each day if I thought it to have been interesting, for I have day and date of every day's work.

In 1847 I began operations June 1st, and ended July 14th, and caught, on about a dozen trees, 1,421 curculios.

1848—May 15th to June 28th, caught	945	do.
1849—June 4th to June 29th,	975	do.
[This year, 1849, I had some 50 trees come into bearing.]		
1850—June 3d to June 26th,	209	do.
1851—June 3d to June 25th,	229	do.
1852—June 4th to June 24th,	320	do.
1853—June 1st to June 16th,	864	do.

This year, 1853, I had quite a number of trees that came into bearing in a part of my garden where plums were never raised before, which probably was part of the cause of my taking so many more this year than the year before, and another reason I think was the mild winter of 1853, which was favorable for them, as they were more plenty throughout this region than for some years before. I believe that, until a way is found out to exterminate them entirely from our gardens, the jarring plan will be found the most effectual, simple and economical way to destroy this little, but formidable pest from our gardens.

Before concluding, I wish to inform you how I cultivate my plum trees. My plan is to set them twelve feet between the rows and six feet in the rows, and prune severely and cultivate highly. By so doing, my trees are not large, but full of bearing wood within two feet of the ground, and from six to eight feet high, and I have every advantage in reaching for and destroying the curculio, which you will find to be the saving of a good deal of time, and on such trees you will have more and finer fruit than on larger ones. I prune my plum trees in July, and have a second growth the same year. Yours respectfully, JOHN PARSONS, JR. *Rockport, Mass., Feb.*, 1854.

SHEEP-SKIN MATS.—These are prepared by stretching the fresh skin, well furnished with a coat of wool, with the wool-side down, by means of tacks at the edges, and then rubbing the skin well with a powdered mixture of equal parts of common salt and alum—repeating the operation twice afterwards, on the two following days. It should remain exposed to the air, but not to the sun, till well dried.

Culture of Millet.

Mr. L. Tucker—Would you, or any of your subscribers, be so kind, by mail or through the columns of *The Cultivator*, as to give me some information relative to the culture of Millet—1. Where the seed can be obtained, and the price—2. How much seed to sow per acre—3. What soil is best adapted for it 4. What time best to sow, and, 5—What stage best to cut for hay? And any other information you or any of your subscribers may be in possession of, and oblige James Wallace. *Victory, N. Y.*

We hope some of our readers, who have cultivated Millet, will answer the above. In the mean time, we will state that it is said to do best on light soils, but of sufficient strength to bear good oats, and which should be in fine tilth. It may be sown for hay from the first of May till the middle of June, or even as late as the first of July, at the rate of three to five pecks per acre. It should be cut as soon as the seeds in the upper parts of the heads begin to harden. It will produce two to three tons of hay per acre—sometimes more, and it is said cattle prefer it to the best clover hay. It stands the drouth well, and is particularly valuable to sow in dry seasons when the hay crop is light, as it will produce a good crop of fodder when sown the last of June or first of July. The seed can be obtained of Wm. Thorburn, Seedsman, Albany, at about $2 per bushel.

Restoring Worn Lands.

Editors of the Co. Gent. and Cultivator—I wish to make some inquiries through the medium of your papers respecting the best means of restoring and sustaining the fertility of exhausted lands—the application of ashes, plaster, &c.

There are many farms in this vicinity, some portions of which are what is commonly called old field, being at so great a distance from the center of the farm, or of such a character that they cannot be manured to good advantage in the usual manner of hoed crops, and have therefore been sown to rye in many cases, so often that the crop will hardly pay for the labor. My practice for some years past has been to sow clover seed in the chaff on rye in the spring, with much success; yet the application of ashes or plaster would probably make the grass more luxuriant.

I wish to know if, in your opinion, ashes alone would benefit the grain as much as the straw and clover crop; if not, would gypsum do it, and will two bushels of the latter and thirty of the former mixed, be a good ratio? I should like your theory or experience in regard to the proper and best use of these ingredients, also their effect singly and combined.

If we can by some such application benefit our grain crops, and obtain also a good crop of clover to plow in, or feed off when it is well grown, would the land be impoverished if three or four years intervened between each grain crop?

Cannot land be brought to a given degree of fertility sooner by turning under green crops of clover in succession, as fast as they can be grown without any regard to the immediate profit of such a course, as the soil would lose but little, and gain much from the atmosphere? A Subscriber. *Vernon, Ct., Feb.*, 1854.

It sometimes happens that ashes and lime are of great benefit to old worn-out lands, and produce extraordinary results for a time, or until the fertility is restored by auxiliary manuring. But in what localities this beneficial result may be produced, can be determined only by experience—theorizing has done much more harm than good in these matters; slip-shod, careless experiments have not been much better; careful, accurate, closely measured trials, are alone reliable, and even *they* require many repetitions and modifications to become of general applicability. We would advise our correspondent to measure off a few quarter-acres, and try the experiments he proposes, weighing or measuring the results, side by side with those on untreated lands.

One of the best and cheapest modes of manuring is plowing in green crops of clover, and the process may be repeated until the soil is fully supplied with vegetable matter. A succession of two or three plowed crops, followed by a year or two of clover with a heavy growth plowed in, will generally increase the fertility of the land. A shorter term of cropping, with a similar practice in other respects, and an occasional introduction of two or three years of pasturing, is still better.

Guano for Corn.

Please let me know the best method of using guano for planting corn. Will not plaster be of service to it? F. K. A. *Tom's Creek, N. C.*

Mr. Moore, a good farmer in this vicinity, whose soil is a sandy loam, informs us that he has used guano successfully on corn, applied in the hill and sown broadcast. He uses it mixed with plaster—2 parts plaster and three of guano—well pulverised and mixed on the barn-floor. When applied in the hill, a tablespoonful is dropped in the drill, and covered about two inches with soil before dropping the seed. In this way, it takes about 150 lbs. to the acre. When used broadcast, he applies 250 lbs. per acre, mixed with plaster as above—spreads it on the ground after plowing, and then cross plows about six inches deep. This is undoubtedly the safest way of using it.

Advertised Manures.

I have a piece of land that I wish to sow with oats and grass seed this spring. The soil is thin and cold. I wish to buy manure enough to insure both crops, and be of lasting benefit to the land. Will you have the kindness to inform me through *The Cultivator* which of the advertised fertilizers would be the most advantageous to me? Likewise for corn land, same as above? and oblige a Young Farmer of Dutchess.

The most certain manures for all purposes, are the different varieties of yard manure, and the composts manufactured from them. Poudrette, provided it is honestly manufactured, has all the advantages of those composts, combined with greater strength—but we cannot inform our correspondent, from our own personal practice and knowledge, of its *relative value* as compared to yard manure, in connexion with *its price*. Next to these in certainty of effect is guano, but as commonly applied, it is not regarded as lasting more than one or two seasons. If used as a component part of composts which contain a large proportion of loam and turf, it would doubtless make a more durable fertilizer Superphosphate of lime, and all other special manures, (that is, such as consist of one or two ingredients only,) are very uncertain in their results, as we

have already shown in numerous published experiments. In some instances, they produce powerful and surprising effects, but much oftener little or no effect whatever. To be safe with them, purchase in moderate quantities and give them a fair trial—if they are successful, a larger investment may be made another year; if a failure, the loss will be moderate, and the knowledge useful. All the crops mentioned are benefited by manures, but corn more especially needs a large quantity.

Liquid Manure Compost.

There is a barn standing on my farm, and in one of its stables cattle and horses have been kept for 20 years, and there has no doubt many hogsheads of their liquid manure run into the ground underneath. Will *The Cultivator* tell me whether the earth so saturated could not be used to much advantage on some crop, and if so on what crop it can be most beneficially applied? C. SMITH. *E. Hamburgh, N. Y.*

No doubt a few inches of the upper surface under the stable is strongly impregnated with fertilizing matter, which would be useful to any crop commonly benefitted by stable manure. If we should make any distinction as to *soil* it would be to apply this earth to lands containing considerable vegetable matter, as liquid manure affords none. This may, however, be merely a nice point in theory, of no great value in ordinary practice.

Experiments in Cultivation.

It is an old and quaint saying, very applicable to experimental farming, that "it requires more than one swallow to make a summer." Farmers, like all other men, are wonderfully prone to draw general conclusions from single facts—a mode of reasoning that leads to a great deal of contention among the tenacious holders of hastily formed opinions. We often publish experiments,—sometimes for the sake of corroborating or enforcing what has been before well proved; and sometimes to accumulate a mass of information from which opinions may be formed in future when enough has been obtained to build a foundation. With this view, we publish the following extracts from a recent letter of PHINEAS PRATT, of Deep River, Ct.

SPECIAL MANURES.—It is said by some that yard manure furnishes all that is necessary for a crop. I have planted peas in a good soil (for some uses) with rotten yard manure—the crop was not worth picking, or eating after it was picked. I have planted them in common soil manured with rich compost of phosphate and ashes, or what contained them. The crop was the most productive, the largest, fullest podded, and finest flavored of the kind I ever saw. I have raised fourteen years in succession on the same ground, a fine crop, the last as good as the first, with the same kind of manure, and but a trifle of that.

HEN MANURE.—One of my neighbors sells his hen manure to the tanners for 12½ cents per bushel. Another values his at a dollar per bushel for manure. I save mine as fast as made in covered casks for compost, and think from experience it is equal to guano. A neighbor manured in the hill four acres of corn with the droppings of thirty hens of one year, and had an excellent crop.

CORN-STALKS FOR MANURE.—I have known a fine crop of broom-corn, fifteen years in succession without manure except the first year, and the stalks plowed in. Common corn, with the stalks laid in the furrow, proved a first-rate crop for many years on the same ground

Valuable Paint for Farm Buildings.

TO THE EDITOR OF THE COUNTRY GENTLEMAN.—I noticed in a recent number of your paper, an inquiry for information as to which was the best paint now in use for barns and other buildings attached to farming premises. If I am not too late in my answer, perhaps my communication may be of use to your readers.

Within a few years there has been a paint discovered in one of our northern counties, which, I understand has already created no little sensation among painters and paint dealers in many parts of the state. It is known as the "American Sienna," and is manufactured at Malone, Franklin co., by Mr. HENRY B. DUANE. It has many most excellent qualities, not the least of which is its cheapness—it requiring one-third less of oil than either the Venetian Red or French Yellow. Among its chemical properties are three portions in oxide of iron, which of course penetrating the surface upon which it is applied, renders it very durable and impervious to every weather. Its fire-proof qualities also very much enhance its value. I know of one instance, where some buildings adjacent to a house painted with the Sienna, burning to the ground, did not in the slightest degree injure this paint, while the white lead paint on the window sashes became very much blistered and disfigured.

This paint is generally used throughout the northern part of this state—particularly for railroad stations and bridges, and I believe has in all cases proved superior to any now in use.

Mr. DUANE, I see, has established agencies in different parts of this and some eastern states, where his paint can be procured.

From what I have seen of this paint and have heard, I can most cordially recommend it to the use of the public. The color is a rich claret. THOMAS D. REED. *Genera, March* 21, 1854.

We would suggest to Mr. DUANE, that it might materially promote the sale of this article, if he would advertise in this paper, the agencies where it can be procured.

Cider in Oil Casks.

I have heard it remarked that cider will not turn to vinegar in an oil cask. Would this effect be produced by drawing it out and putting it in a clean one? If not, is there any process by which it can be done, and what will effectually cleanse an oil cask? A SUBSCRIBER.

We know but little of the manufacture of vinegar in oil casks. Doubtless the chief difficulty is the thin film of oil which covers the surface, excludes the air, and prevents active fermentation. Strong, hot ley, might in time remove the oil from the wood.

Use of Guano in Maryland.

In the first place I will remark that it has become a maxim among us, that the poorer the ground the better for the application of guano. It will not pay so well if applied to ground capable of bringing 20 or 25 bushels of wheat per acre; the increased yield here, even with a favorable season, will not be over 10 to 20 per cent, and the richer the land the less yield, and some say it does no good. On such land, however, it is seldom used. But to the man who owns a farm exhausted by crops of corn, oats and tobacco of his ancestors, and upon which he has been breathing (living would be too strong a word) for years—his land too poor to bring clover even with the aid of plaster, and the farmer too poor to apply lime and manure, guano proves an enchantress that charms him out of starvation into the midst of peace and plenty. If he be a judicious man, and can sell enough of anything to buy a few tons of guano, his fortune is made. He plows up his old field in August, and about the first of October sows on from 200 to 300 lbs. of guano, and harrows it in, with a bushel and a half of wheat per acre; and where before broom sedge would scarcely bloom, he harvests from 15 to 25 bushels per acre, an increase of from three to five fold. In the March following, he sows on clover seed, and you may imagine the astonishment of the old cows the year afterwards, when cropping the blossoms of the succulent clover on grounds where formerly they had toiled all the day long for a precarious existence, browsing sassafras buds and the airy stems and blades of broom sedge.

The race of improvement is now fairly begun, and the farmer, instead of being at an expense for manures, finds, after his crop is sold and all expenses paid, a strange jingle of surplus coin in his pocket. If now he turns under his clover as deep as he can drive it, and applies 100 bushels of lime to the acre, a fertilizer that is at hand everywhere in Maryland, his land is made. I heard of a man who having $1,500 in cash, purchased a farm on credit for $6 or $7 per acre—the whole cost being $2,500. Instead of doing as you would suppose any sensible man would do, pay the $1,500 cash on his debt,—he expended the whole in guano, and applied it 300 lbs. per acre on the worn out fields of his new farm, and sowed on wheat. The result proved he was not so big a ninny as he was generally esteemed. He paid the whole $2,500 with his wheat crop, and improved his land by a good set of clover, at the same time. If, however, the farmer should continue the application of guano without other manures in the quantities above mentioned, the yield will be a diminished one until finally for reasons above stated, if the deductions of science are not all false, the final condition of that land must be worse than the first.

Guano always acts better in soils retentive of moisture, having a large per centage of clay. The ammonia of the guano unites with the clay and is given out to the solvent powers of the water present for the gradual nourishment of the crop. Hence, too, it acts better in moist seasons than in dry, a fact that is true of all other manures. On light soils particularly, if the particles are coarse, its action is not so favorable, and unless the season is very moist it scarcely pays. The reason of this is to be found in the porous nature of such soils, and their high evaporating powers.

Should guano be combined or applied without mixture? This question was much mooted a year or two since in the columns of the American Farmer. The editor contended it should always be combined with plaster to fix the ammonia. A Virginian chemist on the other hand, asserted that such combination called into play chemical affinities which injured its efficacy. The one adduced experiments to prove that it acted well with plaster; the other proved by the same process of reasoning, that it acted well without. I am satisfied that it acts well in either way. On light porous soils, I should, however, combine with plaster or sprinkle with sulphuric acid, and so turn the ammonia into a sulphate which is not volatile. The usual mode of mixing is to turn the guano into a large box, and add 1 bushel plaster to 200 lbs guano, sprinkling with water and stirring till intimately mixed. With large parcels the same may be more conveniently done by spreading the guano and plaster on a tight barn floor, and turning with a shovel, sprinkling with water as before. Some again mix it with strong brine (solution of the chloride of soda) turning the ammonia into a muriate. I am not satisfied that it acts so well in this state as in a sulphate or carbonate, though the brine by adding alkali, in which the guano is deficient, is thus far of advantage.

Should guano be plowed under? This was always insisted on in its first applications. Uncombined, it certainly ought never to be used as a top dressing, and although it ought not to be in contact with the seed, its caustic nature in that case destroying the young plant, yet it ought to be as near the seed as possible. The most approved plan now I believe is to harrow in wheat and guano at one operation. Many of our farmers are now commencing to use the drill which greatly facilitates the application of all concentrated manures.

Should guano be applied to spring crops? My own experience and observation lead me to infer that it does not pay unless the season and soil are favorable. We rarely have a summer sufficiently moist to dissolve the active principles of the guano, and the crop is liable to burn, and on hoed crops where the surface is exposed, evaporation goes on so rapidly that the ammonia is exhaled before the crop matures; and often in its early growth, while the moisture of spring is still in the ground, the luxuriant appearance of the crop leads the farmer to form high expectations that are in the end disappointed—and then all after amelioration of the soil is put out of the question by this mode of using the article. I once sowed 300 lbs. Peruvian guano on an acre of poor ground—soil alluvial, very light but of fine particles. The result was eleven barrels of good corn, or as Cousin Jonathan would express it, 55 bushels shelled corn, the season being favorable.

The following year I sowed oats and could see no difference in the crop where the ground was guanoed and where it had no manure. I think a very large yield of corn might be realized by applying 500 lbs. Peruvian guano to an acre of ground in the fall. In this case a piece of loamy land should be selected, deeply plowed and subsoiled: then as late in the fall as the frost would permit, sow on the guano, intimately mixed with 2½ bushels plaster, and harrow thoroughly. In the spring plow lightly and harrow again, and plant the corn in drills—the stalks 1 foot apart, the rows 3½ feet apart, and the result will be a premium crop at any cattle show.

To the potato crop guano is often applied with the best results, 200 to 300 lbs. per acre in the drills. This crop, however, is so precarious with us that few now attempt to raise more than they need for their own use.

For oats guano is theoretically the very best of manures, as they require much less alkali than wheat. When applied to oats it is sowed with the oats and harrowed *in* in doses of from 100 to 300 lbs. per acre. In favorable seasons the yield is very large. Yet in Maryland not much guano is thus used, the oat crop not being esteemed as profitable under any circumstances.

As a top dressing for the grasses, guano is not much used in our state, in consequence of its volatility, and also of the fact that we do not raise half as much grass as we ought to do, nor take half the pains we ought with what we do raise; but if any of your readers wish to take a premium for timothy, let them mix 100 lbs. Peruvian guano and 100 lbs. nitrate of soda, adding 1 bushel of plaster; let them lie in a heap a week, turning them every day, sprinkling with water to allay the dust, and if he has a tolerable soil and a good set of grass on his land, it matters not how poor it is—the result will astonish him. C. V. *Pikesville, Baltimore county, Md.*

Muck for Manure.

I have a muck meadow, which appears to be made up of vegetable matter of any desirable quantity, very handy to my yards or cultivated lands. I wish to inquire through *The Cultivator*, whether this muck can be made available as a manure for rather dry land, and if so, what is the best mode of preparing it? D. F. *Thetford, Vt.*

The best way to use muck is in mixture with yard manure. If the muck is well dried, it operates beneficially in two ways,—by its own fertilizing ingredients, and by absorbing the liquid manure. It usually contains when wet, about 7 or 8 times its own weight of water—and if made perfectly dry will absorb a like amount of the drainings of stables, cattle yards, &c. If the bed of muck our correspondent speaks of, could be well drained, the muck might be carted off at any convenient season of the year, and placed under a large coarse shed to dry, and to remain so for use. But if the bed cannot be drained, it should be drawn out or thrown up into heaps during the driest season of the year (which is usually immediately after wheat harvest,) if on a coarse plank or slab floor all the better, and then covered with some kind of roof or thatching. This will keep it dry till wanted for littering stables and yards in winter, and if well dried, it will not freeze, but may be drawn and spread during the coldest days.

Muck may be likewise used along with loam and turf to great advantage in forming compost heaps. The upper or turfy surface of the meadow will be found admirably fitted for this purpose. Make a layer of manure, a few feet wide and several rods long, and about five or six inches thick; then cover this with turf and muck nearly double in quantity; then another layer of manure and so on. This is best done in the spring of the year, and afterwards during the season as fast as the manure accumulates. After it has lain a few months, or the next autumn or spring, plow and harrow this heap over with a yoke of oxen so as to intermix it thoroughly, when it will be ready for application to any crop benefited by manure, and it will be found to constitute a most excellent fertilizer—fully equal to ordinary half-rotted yard manure. If the successive layers of manure and turf, muck, &c., are made thinner and more frequently than we have indicated, less intermixing will be subsequently required.

Mice in Unthreshed Grain.

Will you please inform me how to prevent mice from destroying unthreshed grain in the barn? I think I have lost 100 bushels by these vermin the last two years. I have a threshing mill, and thresh my grain as I want the straw for fodder for my cattle, which I feed to them, with turneps, boiled carrots, chaff, &c. J. S. *St. Davids, N. B.*

We know of but two good ways to keep rats from barns, viz: 1. The employment of at least half a dozen good *cats*, of some first-rate ratting breed, for there is much difference in them: and the other, and and probably most complete cure is a couple of genuine rat-terriers. LEWIS F. ALLEN, of Black Rock, N. Y., informs us that the latter remedy has proved perfectly effectual in his extensive barns, where these depredators swarmed by hundreds. The dogs watched their holes, and in a few weeks none could be found nor traced on the premises.

Strychnine and arsenic will kill rats very effectually, especially the latter; but we do not like such deadly poisons in close proximity to breadstuffs, and through which the rats may intermix it.

We have been informed that hideous noises, such as from drums and other similar din-creators, have frightened off rats for a time, provided the music is kept up for an hour or two without intermission.

LEDYARD TOWN AG. SOCIETY.—A Town Agricultural Society was organized in our town, Ledyard, the 7th of the present month; and the following officers were appointed for the ensuing year, viz:

President—SAMUEL S. COONLY.
Vice-Presidents—Augustus C. Boyer, James Avery.
Secretary—Thomas Gould.
Treasurer—Benjamin Baldwin.

A Fair will be held in the month of September, and books, periodicals and newspapers (agricultural) are to be awarded as premiums. THOMAS GOULD.

F. C. L. and Prof. Mapes.

It will be seen from the following, that our correspondent, "F. C. L.," has deemed it proper to reply, under his own proper signature, to the characteristic remarks of the editor of the *Working Farmer*, to which we alluded last week. Mr. FROST will, we trust, excuse us for omitting a portion of his letter relating to matters not strictly bearing upon the question of the value of the "improved superphosphate of lime." The "professor" has already more explanations to make, to place himself right before the public, than he is likely to attend to for some time to come; and we have no desire unnecessarily to add to the burden now pressing upon him:—

MESSRS. EDITORS—I should not have troubled you with any further remarks upon "Professor" MAPES' superphosphate of lime, but for his unwarrantable attack upon you in his paper of the current month, which constrains me to reply to him under my own proper signature.

In the first part of his article he very strangely accuses you and Mr. DE BURGH, of concocting and publishing my former letter to you, containing the result of my experiments with his superphosphate of lime. Now I beg leave to assure you of the entire truth of all I said before, and that I "nothing extenuated, nor aught set down in malice," although I do feel that my $100 was very poorly invested. Again, the "Professor" says that he cannot find any subscriber at Rahway, bearing the initials of F. C. L.; but perhaps Mr. Mc Cready *can* find that L. C. FROST did formerly subscribe to the Working Farmer; and that he also sold and sent to the same address, more than one lot of Phosphate. He also boldly asserts, that no one of those initials bought Phosphate from his factory. In reply I would ask the "Professor" if it is customary or necessary to keep there, a record of the names of all parties, who buy and pay for his manure, or are his books so kept that every cash customer's name is entered? In my case there certainly was no such entry made. The professor then quotes my experiment with his superphosphate, in comparison with guano and hog manure, on corn, made side by side, and the result of which I gave you in my first communication; but he very wisely abstains from making any reply, or attempting any contradiction. He likewise accuses me of not giving the names of my neighbors, whose experience coincides with my own. He can see that I am not ashamed to give my experiments under my own signature; but he must know that one naturally has some delicacy in dragging his neighbors into a public discussion; although the "Professor" himself is not much troubled with either modesty or delicacy, when he boldly asserts that I am guilty of writing you a "vile tisue of misstatements," nor does it savor much of the gentleman. That kind of argument is generally resorted to by lawyers in special pleading, when they have a very bad case, with but few facts to sustain it.

The "Professor" also names some gentlemen, whom he facetiously calls neighbors of mine, occupying as he says the same kind of soil. One of these neighbors lives in Monmouth co., 50 miles distant, one in Patterson 20 miles, and others at distances varying from 10 to 20 miles from Rahway, and all of them with soils *entirely dissimilar*. I would inform the Professor, that our county is more thickly settled than he has any idea of; and these gentlemen do not live within visiting distance of me; but I defy him to get one favorable report from any farmer within three miles of his factory, who has used the *same* kind of Phosphate he sells to the public generally—not from some friend to whom he has sent a few bags of *genuine* superphosphate, for the purpose of getting his card to publish.

I refer him to vol. 1, page 17, of the Working Farmer, where he calls a farmer, who has not a chemical education, a "*mere laboror*," but not a farmer, and can also point out many other places in his own columns, where he asserts the same thing.

In conclusion Messrs. Editors, I would again assure you of the entire truth of my former statements, and will say to the "Professor" that his long review and numerous letters do not and cannot disprove them; and he will bear in mind, that accusing you of concocting and publishing, and me of furnishing you with "a vile tissue of misstatements," will add nothing to his reputation as a scientific man, or as a lover of fair and open discussion upon the various *humbugs* of the day. As regards Mr. De Burgh's Phosphate, I have never used any of it, and of course cannot speak of its merits. Yours truly, L. C. FROST. *Rahay, N. J.*

Manuring Fruit Trees.

You have mentioned that a compost made of turf, stable manure, and ashes, was good for young peach and apple trees. Will you please inform me how much should be used? also, when should it be put on? also, what are the best fall and winter apples? P. W. L. *Hampshire county, Mass.*

Manures for fruit trees are best applied in autumn, the fertilizing portions soaking well through the soil by the commencement of growth the following spring. It is nearly as well to apply it early in spring, and much better than waiting till another autumn. The quantity must depend entirely on the degree of previous fertility, and the size of the tree. On a tolerably rich soil in western New-York, we have applied a one-horse cart-load of such compost to a hole seven feet in diameter, before planting the young apple tree, and have had a *very rapid* and healthy subsequent growth in the tree. One or two ordinary cart-loads of well rotted compost worked into the soil at the residence of our correspondent, over a space of a rod or two in diameter for a large tree, or one half or one fourth that quantity for trees proportionately young, would be by no means too much, and would doubtless greatly increase the quantity and quality of the crop. On richer soils, and under hotter suns, for instance in central Illinois, such heavy manuring would probably be not only unnecessary, but injurious. Peach trees do not need so much manuring as apple trees, but depend more on keeping the soil clear and mellow by constant cultivation.

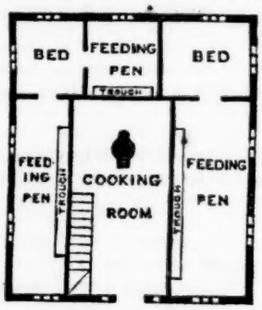
Churning by Steam Power.

MESSRS. EDITORS—In the *Country Gentleman* of Feb. 9, "A New Subscriber" wishes to know whether steam power is in use in any of the large dairies, and what the opinion is in relation to its safety and utility as compared with other modes, cost, &c. In answer, I will say that I have used steam power for churning and other purposes, for two years. My engine, (made by Messrs. HOARD & BRADFORD, Watertown, N. Y.—2-horse power—price, two years ago, $160,) is amply sufficient for any amount of churning, with all the ease and safety of boiling a tea kettle in a common stove, requiring no large amount of steam; while it will saw wood, thresh, cut feed, turn grindstone, turn washing machines, saw and bore fence caps, &c., &c., to good advantage. I have sawed a cord of soft wood in nine minutes, and 14 cords of hard wood in half a day—can thresh 250 to 300 bushels of oats per day, and other grain in proportion. I had previously churned by horse power, (having no access to water power,) but consider the steam far preferable both for convenience and economy. Should not like to do without it. G. A. HANCHET. *West Stockholm, N. Y.*

Plan of a Piggery.

A correspondent at Middle Granville, N. Y. asks for a plan and description of a hog-house, and believing such a plan may be of essential use to many of our readers, we furnish the accompanying design. Of the many we have seen, this design, which we copy in part from several now in use, with some additions of our own, suits us the best.

The size may vary with the number of animals to be accommodated; twenty by twenty-five feet on the ground will afford good accommodation for twenty-five or thirty pigs. The lower floor, represented in the



"*plan*," shows the arrangement for their accommodation; the larger animals occupy the wider pen on the right, and the smaller the narrower pen on the left; and being kept entirely separate, there can be no danger of the weaker suffering from the strong; or, as sometimes happens when there are many of the smaller, being pressed or smothered to death in their beds. For the accommodation of the smallest in size, the central feeding-pen may be made to admit these only, by a sliding entrance graduated to their exact size, and excluding the larger. Or, sucking-pigs may be kept here, and the dam admitted for regular meals, thus precluding the usual danger of death during night to the young animals by lying upon them. They may be let out into separate yards, attached to the building.

The cooking room is in the most convenient position for feeding out. The spouts for carrying the food into the troughs should be large enough to admit its free passage, and wide enough for all parts to be filled at once; and its inner edges should be trimmed with sheet-iron to prevent the animals gnawing it. The troughs should be made of the best hard wood plank, (nothing is better than white oak,) and they should be securely fastened to the floor, which should be hard plank, laid smooth, and made tight, so as to admit of the utmost facility of cleaning. The inner partitions should be made of similar material, and a lining of hard plank should extend all around the inside as high as the bottom of the windows. Without this firm and secure provision, the walls would soon become destroyed by these restless animals.

The food may be cooked in one or more of Mott's furnaces, which will boil a large amount of water with a very small quantity of wood; and in large establishments two of these may be kept constantly employed, the food being cooked in one while it is fed out from the other. The pipe from the furnace passes through the floor above, and by a single elbow enters the brick chimney, which is built upon the second floor. A ventilator, as large as a large stove-pipe, surmounted with one of Emerson's caps, or some other equally good, carries off the bad air from the apartments below.

The upper story is used for storing the food, which by means of a square wooden spout with sliding valve, may be conducted from a hopper directly into the boiler below. If the ground at the back of the building should be rising, a platform may be laid, on which the materials for food may be carted or wheeled into the back upper door, (opposite the large window represented in the view,) otherwise a pully may be fixed over this door for the same object.

The dislike which many persons have to these animals and to their dirty habits, is in a great measure owing to their owner's negligence, in not providing them clean and comfortable quarters. It has been justly remarked that the pig is not positively an admirer of dirt, but there are certain comforts he is determined to have in spite of dirt, if he can get them. It usually happens, however, that the scanty accommodations with which he is furnished, provide him with little of the comforts, and plenty of the dirt. In short, no animal is so wretchedly cared for as the pig; very few of them receive comfortable shelter, and still fewer enjoy the luxury of cleanliness. Fortunately, there are a few good managers who have proved that a pig-house may be kept as clean and sweet as any other part of the premises; and who have also proved that filth is a positive discomfort even to these animals, for

they are found to thrive and fatten decidedly faster when strict cleanliness is preserved. Even the practice of daily currying hogs has been found by actual experiment to accelerate their fattening, the food remaining the same.

To assist the preservation of cleanliness in every part of the building here described, it is well lighted with windows. They should be made to slide, so as to be opened for ventilation in mild weather. For an additional safeguard, and for excluding an excess of light at any time, they may be furnished with board shutters sliding horizontally inside. In addition to cleaning the pens twice a day, it will be necessary to keep the floor sprinkled with straw, well dried peat or turf, or other similar material to absorb the watery portions of the manure. The contents should not be thrown out of a window or door, forming an unsightly pile near the building, but wheeled off with a wheelbarrow to a proper distance; and as this manure is of a very fertilizing character, and therefore especially worthy of preservation, it should be deposited so as to form a neat compost heap, to which additional layers of turf should be successively added, unless the bedding of the animals supplies all the needed absorbents.

The cost of such a building as this, framed of strong timber, covered with inch and-a-half vertical plank and battened and whitewashed with two coats of lime, will vary from one hundred and fifty to two hundred dollars, if of the size already mentioned, that is twenty by twenty-five feet. For large establishments, larger dimensions and a greater number of subdivisions of the apartments may be necessary, the general arrangement remaining the same. It may in such a case be most economical to dig a cellar beneath, to be occupied with a steam-boiler, from which the steam may pass up through a pipe into a tight plank box above, containing the food to be steamed, and from which, when cooked, it may be shovelled at once into the feeding troughs. Several experimental farmers have successfully adopted the practice of steaming their corn unground, and even in the ear, a process which, however, requires several hours for its completion, but which saves toll and carrying to mill, but we are not informed that any accurate experiments have been instituted to show the precise amount of saving effected by this process.

Profitable Sheep.—Mr. J. Hurlbutt, Gale's Ferry, Conn., informs us that in the fall of 1852, he had a flock of twenty-one sheep, of what are called native breed, which he kept on his meadows through the winter, only feeding them with hay when there was snow on the ground. Through the month of April, they were fed four quarts of oats per day, and then turned on an old pasture, where they were kept through the summer. They produced eighty three pounds of wool which was sold at fifty cents per lb. making $41,50, and raised twenty-four lambs which averaged $2 each, making an average income of $4,25 per head. Mr. H. adds—"I would just say that I never allow butchers to pick out the best lambs or the fattest sheep."

The Carnation, the Picotee and Pink.

The flowers we have selected for this paper, may be called universal favorites. Who is there who has not admired in their day some member of this sweet-scented family? Perhaps the pet of a mother or sister at the old homestead, helping by its cheerfulness, or delightful fragrance of a balmy summer's evening, to soothe the cares and toils of every-day life.

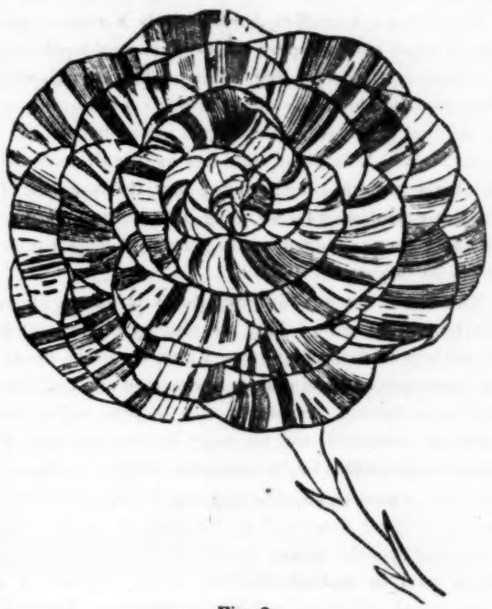


Fig. 2.

Few flowers can boast of more ardent admirers in the mother country, and even in this they have had their share of votaries. To grow them really fine, re

Fig. 3.

quires a light sandy loam; but any garden soil, provided it is not stiff and wet, will grow them for the purpose we are here speaking of, the flower garden.

The Carnation—*Dianthus caryophyllus*—is divi.

ded into *Flakes* and *Bizarres*; the former distinguished by having two colors, with their stripes running quite through and along the petals—the latter, striped with not fewer than three colors, and irregularly spotted, (fig. 2.)

The Picotee is also a variety of D. caryophyllus, and is divided by florists into *red edged*, *purple edged*, *rose* and *scarlet edged*, and *yellow-ground* Picotees, (fig. 3.)

THE PINK—*Dianthus hortensis*—is a distinct species of some botanists; by others, it is considered only a variety of the preceding, while no less an authority than Decandolle claims the *Dianthus plumarius*, as its original type. Who can decide when doctors disagree? Which is right, does not materially concern us at the present time; enough that it is the best of the three mentioned for standing hard usage, and must be badly treated indeed, not to give us at least a pretty border flower.

The whole are readily propagated by layers about the middle or end of July, as also by pipings—that is, cuttings of the young grass, which should be inserted under bell or hand glasses in the open air, and shaded from the sun. Seed can also be procured of the principal seedsmen, and we have known instances of their coming exceeding double and pretty. It should be sown as soon as possible in a gentle heat, and kept in pots till all danger of spring frosts is over; then transferred to the flower border, or a piece of ground made good by copious additions of the top sod of a sandy loam, and some well rotted manure. By careful attention they will flower this reason, when the good may be selected and propagated from, and the worthless allowed to take their chance among other perennials. It may be sown in the natural ground the middle of April, but will scarcely flower the first season.

If it is desired to grow these gems to perfection, a border should be selected, and about six inches of turfy loam, dung and sand—one-half of the former, the rest of the two latter, placed on, and well incorporated with the garden soil.

Plant the Carnations and Picotees 12 to 15 inches apart—the Pinks about 8 inches.

At the approach of winter they should receive some protection; a few boards nailed together, and some sash placed on these would be best. Where that can not be done, some loose and light material should be carefully placed round about them, just leaving the crowns of the plants protruding, and the covering kept from blowing away by a few pegs. They should be uncovered in the spring as soon as all danger of frost is over. EDGAR SANDERS. *Albany, March* 20.

Hon. J. S. PETTIBONE, of Manchester, Vt., has invented a very simple contrivance for sharpening sap spiles, by means of which the work can be done with great rapidity and ease. One of the instruments can be seen at the Agricultural Rooms in the old State Hall in this city.

Market Apples.

EDS. CO. GENTLEMAN—It is my intention to set out a large orchard of apple trees in the spring, numbering over 300 trees, but only of five kinds, and those to be *all market kinds*—two for summer, two for fall and one for winter. Be so kind as to name for me the five kinds according to your excellent judgment, and by which I shall be hereafter remunerated by crops. If you think the Gravenstein is worthy a place as a fall kind, taking all things into consideration, please name it as one of the kinds—not otherwise. Yours truly, AUSTIN J. ROBERTS. *Middleboro, Mass.*

In selecting sorts for profitable marketing, there is one *indispensible requisite*, without which no fruit, however excellent, will answer for adoption. This is a uniformly *fair* surface. If this can be combined with first rate quality, all the better; but if the highest flavor cannot be had, a lower standard must be admitted in order to secure a smooth exterior. This necessity is becoming more and more apparent, as apples of late years increase in scabbiness and imperfect form.

For the two summer varieties, the *Red Astrachan* and *Sops of Wine* will probably prove best, unless the former should prove generally liable to attacks of the curculio more than most other sorts, as has been found in some places. The Sops of Wine is remarkable for its fair form. The trees of both sorts are fine growers.

The two fairest and most uniformly productive autumn apples, are probably the *Lowell* and *Porter* for mid-autumn, and the *Late Strawberry* for early autumn. The two first-named are rather slow growers; the Strawberry is a handsome and free grower, and profusely productive. The *productiveness* of the *Gravenstein* for all places is yet to be proved—otherwise it would stand at the head of the autumn list. The *Duchess of Oldenburgh* is a good, and a very fair and handsome apple, and will probably be productive.

For winter, the *Rhode Island Greening* and the *Baldwin* are unquestionably the two best market apples in America. The Greening is more uniform in quality, and the fruit more apt to be of good size and fair surface under all circumstances and all kinds of treatment, and in all localities; while the Baldwin is a handsomer grower, and a better bearer while young.

With this information, our correspondent will be enabled to select such of the sorts we have named as may best suit his wishes.

Early Cucumbers.

Plant in hot-beds on pieces of inverted turf, that may be removed and set in the open ground, as soon as the weather will render it safe. Or plant in the shell of a rutabaga that has had its pulp scraped out and then filled with rich mould. The shell will soon decay and the roots pass beyond. There are two good ways to keep off the bugs. One is to lay four bricks on edges round the plants and a pane of glass over them; the other is to make wooden boxes six or eight inches square and cover with netting. About ninety-nine hundredths of all the plants that come up are eaten by these depredators in the country at large—either of these contrivances will save them all.

Horticultural Humbugs.

The recent grave announcement in the proceedings of the United States Agricultural Society, that a certain learned (?) "professor," and a prominent actor in the deliberations of that body, had presented a head of wheat and chess growing on the same root, reminds us of several similar wonders, which have been at various times announced to the world. The question very naturally arises, whether this is the first example of half transmuted wheat that has ever occurred, and why,—if it is so very common for wheat to take a fancy to pass generic boundaries, and become chess,—it should be so very rarely caught in the act? Why, among the million farmers of this continent, each having in his field a thousand million stalks of wheat, should not more be found, who can catch the cunning plant in the act of dodging out of its own proper territories and invading those of the chess plant? A whole field of wheat is converted to countless myriads of plants of chess—now, when is this done, at what time of day or night—why cannot numerous specimens be found of such as are in a transition state, instead of a single example, so rare that it must be sent from Livingston county, N. Y., to Newark, N. J., and thence to be exhibited before the most learned agricultural body in America, as a thing that none of them had ever before witnessed?

But leaving more learned men to explain this difficulty, our present purpose is to mention a few other wonders, and how they are manufactured. We have heard of grafting the peach on the willow, and that *when* the tree thus produced bears peaches, they will be a uniform mass of pulp without any stone! We have also heard that at a certain day of the moon, the peach might be grafted into the butternut, which we do not question, although we shall not guaranty the success of the job. Many have heard of placing the halves of two dissimilar apple-buds in contact, to produce a sweet-and-sour apple, but we could never yet find the man who would say that *he* had seen the operation successfully performed, he had only heard it from another.* But we shall not trouble ourselves and readers to account for what only exists by flying report; we have only to do at present with actually exhibited wonders. In describing some of these, we cannot do better than to quote from a recent article in the London *Gardener's Chronicle*:—

Some 25 years since an English nobleman purchased in Italy, for a large sum, from an honest dealer there, a marvellous plant, which, as he thought confirmed the old VIRGILIAN tale of Apples growing upon Plane trees. At least it appeared to his lordship to negative the general belief that dissimilar species cannot be made to unite by grafting; for here he had a Jasmine, a Honeysuckle, a Myrtle, and an Olive, all grafted on an Orange tree and flourshing luxuriantly. In due time the specimen reached England, and was for many months the admiration of the intelligent visitors at * * *.

* Many are familiar with what is termed the "sweet-and-sour" apple, caused by a sort of diseased or imperfectly developed pulp on one side, but never by two buds united after being cut directly through the heart.

We need not say that all these tales, like the ancient authorities so learnedly quoted by our calassical friend, are mere fables; and that the examples by which they are supported, whether new or old, are instances of fraud and credulity.

The trick by means of which are obtained such trees as that to which we adverted is now perfectly understood, and 30 years since was explained, under the name of "Impostors Grafting," by the late ANDRE THOUIN, from whose article *Greffe* in the *Nouveau Cours d'Agriculture* (1822), the following is an extract:—

"The so-called *greffe des charlatans* is nothing more than a plantation formed within the trunk of a tree, which has been hollowed out longitudinally quite into the ground below its roots. One or more young plants furnished with good roots are drawn through the trunk, and their roots are then covered with rich vegetable mould. These plants grow vigorously, fill up the cavity in the trunk with their stems, which squeeze closely together and eventually form at the top of the opening a swelling which perfectly resembles that produced by grafting.

"In this way was most probably formed the group of trees which PLINY the naturalist observed in the gardens of LUCULLUS at Tivoli, and which is described in his 'Natural History.' On the trunk of one tree he saw branches, some of which produced Pears, others Figs, Apples, Plums, Olives, Almonds, Grapes, &c.; but he adds, a little farther on, that this wonderful tree, which he cousidered as produced by the art of grafting, did not live long, and that it died some years after he first examined it.

M. THOUIN further tells us that he himself tried the operation with perfect success upon both a Lime and an Ash tree a foot in diameter. He contrived to give both of them heads consisting of Plums, Hazels, wild and cultivated Services, Walnuts, Peaches, and Vines, the branches of which were thoroughly interlaced. Of one of these he gives a figure which we reproduce, and which perfectly illustrates the system.

New Work on Fruit.

ELLIOTT'S FRUIT BOOK; or the American Fruit Grower's Guide in the Orchard and Garden. By F. R. Elliott New-York: C. M. Saxton, 1854.

This new work on fruits and their culture, which has been for some time expected, has been recently published. It is a handsome duodecimo of about 500 pages. It is chiefly occupied with descriptions of the varieties of fruit, native and introduced, which have been more or less cultivated in this country. This constitutes its great value, on which the author has assiduously labored for several years. About one-fifth part or the remainder is occupied with general and particular directions for culture, modes of propagation, and practical remarks.

The varieties of each fruit are divided into three distinct classes, which are treated of separately. First, we are furnished with those "worthy of general cultivation," which are distinctly described, mostly in connexion with figures, representing the fruit as cut through the middle, exhibiting the core and seeds. Next comes the list "for amateur culture," in smaller type; and lastly those "unworthy of cultivation," which are very briefly noticed or described.

This work, in some respects, possesses advantages over any of its predecessors. The author has had the advantage of deriving information from all previous sources, added to his own extensive knowledge of western fruits, particularly of the apples of the western states, and on the latter branch of the subject, much that is interesting and valuable may be found.

He has introduced some decided improvements in nomenclature, especially in translating most of the French names. A few, however, we fear will hardly be adopted, such for example as *White Dean*, for *White Doyenné* (p. 306,) *Summer Dean*, for *Summer Doyenné*, &c. An improvement is made by dropping the word "Melocoton" from the names of some peaches, long enough without it; and if the word "Beurré" had been stricken off the names of most pears to which it is attached, it would have been still better, for as commonly used, it has very little meaning. We observe occasional errors in synonyms; for example, *Beurré gris d'Hiver Nouveau*, is given as a synonym of *Easter Beurre; Ne plus Meuris*, (a small third-rate winter pear) as a synonym of *Beurré d'Anjou;* and *Long Green* and *Long Green of Autumn* appear to be confounded together. *Sops of Wine* and *Sapson* apple are made identical.* The author suspects the Vandevere and Smokehouse to be identical, but they not only differ in the season of maturity and in quality, but totally in their manner of growth. These are, however, only occasional exceptions to the general accuracy of the work.

We cannot quite agree with the author in all his classification of fruits worthy of general cultivation, and otherwise; more especially where he introduces among the former, some quite new varieties which have as yet had but very limited trial. For example, there are *thirty* sorts of the cherry described as worthy of general cultivation, *nineteen* of which are Dr. Kirtland's new seedlings at Cleveland, described now and formerly by the author, and only *eleven* in all, of the whole list of cherries previously known—the Mayduke, Holland Bigarreau, and Graffion, are placed among those for amateur cultivation only. We know some of Kirtland's seedlings are of great excellence, and presume the rest are, but they need more trial. We observe the *Druid Hill* peach is not even allowed a place in the amateur's list, but is rejected as unworthy of any cultivation. One other point we ought not to omit—the Glossary of terms is copied without quotation or reference, almost word for word, from the entirely original glossary in the American Fruit Culturist. We presume this was an inadvertence.†

The great mass of the matter, however, is marked with correctness and with much knowledge of fruits, and the work will of course stand at the head, so far as its descriptions of western varieties are concerned; and as such we strongly commend it to the fruit-raising portion of the community.

* The distinctions in these sorts are pointed out in the *later editions* of some other pomological works.

Answers to Inquiries.

PLANTING EVERGREEN SEEDS.—(*Wm. Tinker. 2d.*) Sow evergreen seeds in the spring as soon as active vegetation generally commences. The seeds need no preparation before planting. They should be covered rather thinly with light rich mould, which should be kept rather moist at all times, and the young plants, if not before, must be wholly protected from the sun's rays as soon as up, and for many weeks afterwards.

GRAFTING THE PEAR ON LARGE STOCKS OF COMMON QUINCE.—(*Dr. D. H. Hallock, Long Island.*) We cannot recommend this practice, except by way of experiment. The wind sometimes breaks the graft from the stock, under ordinary treatment. Grafting is regarded as forming a less firm junction than budding small stocks. Large stocks an inch or two in diameter would render the union more imperfect. The experi-

† If we mistake not, from seeing a former expression of the author of the work before us, he had received an impression that the American Fruit Culturist had copied largely, and was not a strictly original work. He may therefore have sincerely believed that portions of it had thus become common property, and for which it was not necessary to give credit. Strange as it may appear, such a notion has prevailed in the minds of some, from causes not necessary now to mention. The singular error of such a notion is obvious, when the work is compared with some other treatises of a high character, such for example as Downing's Fruits and Fruit Trees, which no one ever charged with fault in this particular. Yet three-fourths of his illustrations in culture are the identical figures of Lindley and Loudon; while those in the Fruit Culturist were drawn directly from nature. Downing's work, in the *arrangement* of its first part, is an exact copy from Kenrick, and in its last, from Lindley's Guide. The arrangement of the Fruit Culturist was copied from no work whatever. The remark has been made that much of the matter of the Fruit Culturist was taken from the Horticulturist; yet all its quotations from that work, (credit being always given, and the consent of its *proprietor* obtained,) all did not amount in extent to a *single quotation* from Hovey's Magazine in Downing's work. We could adduce a long list of similar proofs, showing the entire fallacy of the opinion above alluded to, which seems indeed to have been originated for a certain reason, only on account of its utter absurdity. Yet some, we discover, adopted it without examination.

ment may be tried, however, and the Angouleme, Louise Bonne Jersey and Vicar of Winkfield pear, will probably succeed tolerably well with the common quince. The union would be smoother and more perfect if performed according to the directions for grafting large stocks given on p. 413 of the ninth edition of the American Fruit Culturist, and one or two of the previous editions. We should prefer grafting at the surface of the ground. We should not attempt the Bartlett, Seckel and Winter Nelis (named by our correspondent,) in this way—their growth on the quince is too slow.

Fencing out the Curculio.—(*J. S., Pa*) W. Manice, of Long Island, constructed many years ago a tight board fence around his plum orchard, about nine feet high, with tight board gates. The curculios did not fly high enough to enter, many striking the sides of the fence and falling outside. An acquaintance who visited the garden when in full fruit informed us that all the trees *within* the enclosure were heavily loaded with plums, at the same time he observed a tree outside that had lost every specimen.

Select List of Roses, Phloxes, &c.

I would like to know the *six* really finest and distinct varieties each, of Hybrid China, Hybrid Perpetual, Bourbon, Noisette, and Tea roses; phloxes, verbenas, and Fuchsias—also the 12 finest perfectly distinct Dahlias. A. Williams. *Galesburg, Ill., March*, 1854.

Of the Hybrid China, or summer roses, for a distinct list varying from almost black to pure white, none are perhaps superior to *George IV.*, dark velvet crimson; *Roi de Prusse*, very compact, pale purple; *Triomphe d'Abbeville*, deep brilliant red, very double; *Fulgens*, intensely bright crimson; *Bonne Genevive*, clear light red, compact and very delicate; and *Madame Plantier*, pure snowy white. There are many others, scarcely if any inferior to these.

Hybrid Perpetuals—*Baron Prevost*, large, bright rose; *La Reine*, large, purplish rose, remarkable for its tall growth; *Geant des Batailles*, small, but unequaled for its brilliant crimson; *Marquise Bocella*, light pink (rather tender;) *Duchess of Sutherland*, light rose, vigorous grower; to which may be added one of the white sorts, such as Blanche Vibert, Pauline Bonaparte, &c., which, however, we have never been successful in cultivating. There are some other sorts as fine in flowers as these, but with other defects—for instance, Prince Albert is a beautiful brilliant purple-crimson, but very slow grower; Louis Bonaparte, fine deep red, but tender, &c.

Bourbon—*Souvenir Malmaison* stands at the head, as a very large, very compact, delicate, fragrant, light creamy pink flower, and a constant bloomer—but it is a very slow grower; *Gen. Dubourg*, far inferior in the beauty of its flowers, but exceeding nearly every other perpetual for its uninterrupted flowering till frost, and its exceedingly vigorous growth; *Gloire des Rosamenes*, loose in form, and rather tender, but unequaled in its brilliant crimson color; *Paul Joseph*, bright scarlet; *Madame Desprez*, purplish rose, large and in clusters; *Julie de Loyne*, for its white color.

Noisettes—*Amie Vibert*, pure white; *Lamarque*, pale yellow, large and fragrant; *Solfaterre*, yellow; *Fellenberg*, bright red, a constant and profuse bloomer; *Champney*, small, light rose, valuable for its strong and hardy growth, and blooming almost till winter in open ground; *Walter Scott*, deep rose. The Augusta and Chromatella are both very fine, but being nearly the color of the Solfaterre, they are omitted to give place to greater variety.

Phloxes—*Van Houtii*, very distinctly striped white and purple, and often blooming many weeks; *Speciosa*, fine reddish purple, with crimson eye, strong grower and showy; *Fleure de Marie*, white with a pink eye: *Harrisoni*, clear white; *Reine Louise*, delicately striped; and the native species *P. maculata*, which flowers earlier than the others, and forms fine masses. There are several early species of much beauty, such as the common *P. subulata* or moss pink; *P. nivalis*, small white; *P. stolonifera*, fine red, &c.

Of the Verbenas and Dahlias, there have been so many varieties originated of late years, with which we are but slightly acquainted or have no knowledge at all, that we prefer leaving select lists to some of our correspondents who have cultivated them extensively.

Best Wax for Grafting.

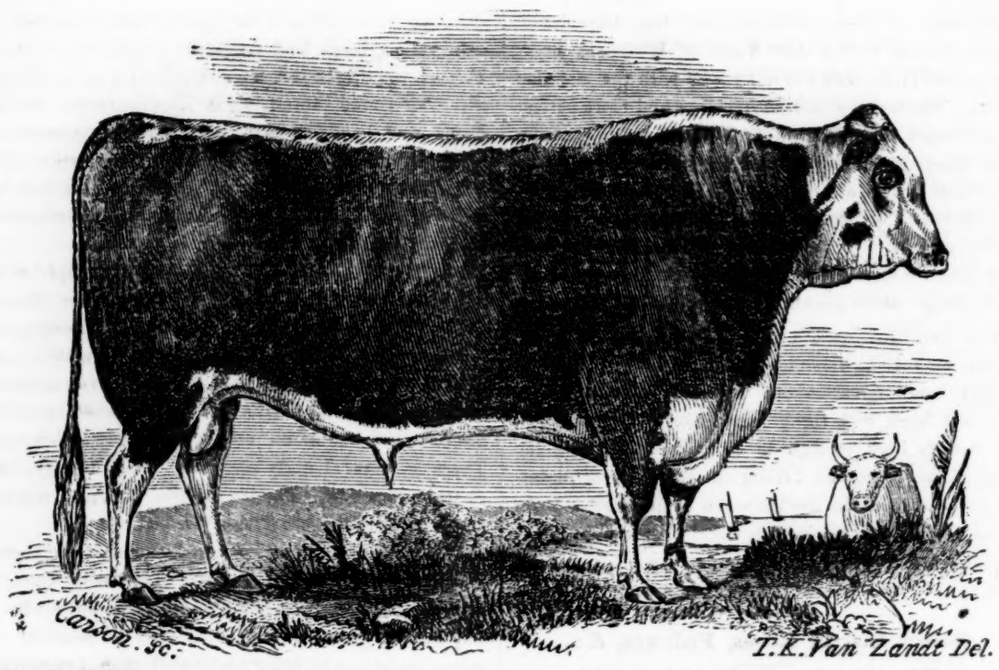
Eds. Co. Gent.—As the season for grafting is at hand or near, many wish to know the composition of the best grafting wax. I therefore send you a receipt, not because it is new, but because it is old, the most common, and the one preferred generally by those of extensive experience. It was mentioned last spring in your paper (Co. Gent., vol. 1, pp. 183, 215.) The formulas given in vol. 1, p. 279, and vol. 3, p. 171, I think not good, especially the latter; it melts too easily for our climate. The use of linseed oil appears not to be attended by as good results as many have supposed. I use, by weight,

4 parts rosin, (the best is preferable,)
2 " beeswax,
1 " tallow,

Melted well together—thrown while hot into cold water, and when cool enough, worked well with the hands. This wax is cheap, is soft enough to spread easily, yet hard enough to withstand the heat of our hotest summers without melting, and withal very durable. It may be kept several years—(I know not how many, certainly three or four,) without losing its essential properties. The same may be used for covering the wounds made in pruning or after budding. Yours truly, W. H. B. *Ovid, N. Y., March* 21, 1854.

Profitable Strawberry Bed.

Mr. Tucker—I am something of a strawberry cultivator, and to show you how well I succeed, I can say that I have sold off from 25 rods of ground, including the alleys, $215 worth, which is over $1,300 to the acre. They were sold at 20 cents a quart, which I think is doing well for a new beginner. L. A. Brown. *West Haven, Ct.*



Cardinal Wiseman—a Hereford Bull Imported and Owned by E. Corning, Jr., Albany.

We give above a cut of this animal, though it hardly does him justice. Mr. Corning has on his farm a small herd of very superior Herefords, a breed noted for their size, symmetry of form, and tendency to fatten easily. The animals were selected with great care from the best herds in England, by Mr. CORNING and B. P. JOHNSON, Secretary of State Ag. Society. We subjoin the pedigree:—

"*Cardinal Wiseman*" was imported in the fall of 1851, from the herd of Rev. Mr. Smythie—calved August 19, 1850—sired by Expectation, out of Wisdom, by Woodstock—grand-dam by Young Favorite, out of Mr. Tully's Tredegar prize heifer. (See Hereford Herd Book.) He has received the first prize in his class for two successive years at the Fair of the N. Y. State Ag. Society.

Quarter-ill in Cattle.

MR. TUCKER—I have lost four yearling calves within the last two weeks, by a disease which I am wholly unacquainted with, nor can I gain much information in regard to it. Some call it the "black leg;" others call it "the speed," which name I think very appropriate, as they all died within twelve hours after I first noticed that they were affected. The first one that died I could see nothing the matter with, only that it refused to eat. It walked around till within one hour before it died. When I came to skin it, clotted blood appeared all along the back, between the skin and flesh. The others when first discovered, appeared stiff in their shoulders, and died in a few hours. Mortification had taken place in those shoulders that were affected before they died. I am anxious to learn the cause, name, and the remedy for this disease—also whether it is infectious or not. Any information in regard to it, through the columns of the *Country Gentleman*, will be thankfully received by A SUBSCRIBER. *Fulton co., N. Y., March* 22, 1854.

Our correspondent has not given the symptoms nor described the nature of the disease with sufficient accuracy to enable us to decide with certainty in relation to it. We presume, however, that it is one of the phases of what is called "quarter-ill," "joint murrain," "black leg," &c., and for which we know of no treatment promising much hope of a cure. Youatt recommends liberal bleeding and purging, while other eminent veterinarians strongly object to this course. We have had on hand for some time, a very interesting paper on this subject, by our correspondent Dr. W. A. CUMING, veterinary surgeon, New-Brunswick, which it is our intention to publish as soon as we can make room for it. He concludes his essay as follows:

"As we have already seen the course of the disease to be asthenic, so coma is always one of the immediate precursors of death, and the treatment applicable to both conditions is of the stimulating kind—stimulants and excitants, both local and general. As general stimulants, alcohol in any of its ordinary diluted forms—Spirit Eth. Nit., Ol. Yerib., or Aqua-ammonia dilute, may be used; and, as local applications, bathing with sharp hot water, friction with mustard, turpentine, or some other irritant, or the application over the part, of the laundress' iron at a heat less than sufficient to injure the skin. Such are the means that the character of the disease seems to indicate, and that, on trial, have been found to show the greatest appearance of being of use; but the chances of recovery are so slender, that, unless attempted for the pure love of practice, there are but few who will trouble themselves with the curative treatment of quarter-ill."

A box 4 inches by 4 inches square, and 4-1 inches deep, will contain one quart.

Bone-Sickness in Cattle.

In the *Country Gentleman* of Feb. 22d, I observed the inquiries of Mr. TUTTLE concerning a morbid appetite his cows had acquired for chewing old bones and such like, and at the time of reading, had thoughts of writing a reply, only that I expected some one nearer you would do so before me. In this expectation I have not been disappointed, and my object in writing now is to confirm as far as I may the practical conclusions of Professor NASH, in your paper of Feb. 23d, while at the same time I dissent from the reasoning by which he arrives at them.

In the poorer parts of Scotland, up to twenty or thirty years ago, a disease used to prevail similar in many respects to the *bone*-sickness of America. In cold seasons, bleak situations, and poor pastures, not only cows but work oxen, and sometimes even young cattle, would be attacked by it—would become stiff, dejected and hide-bound—would lose flesh and acquire a morbid appetite just as Mr. Tuttle well describes. Since the introduction of bone-dust and guano—a more liberal system of farming and drainage—and a larger proportion of root crops, all this has mostly disappeared; and so far, for the practical purpose of the farmer, the chemical solution of the professor is correct. Beyond this, however, I cannot endorse his ideas, nor need I remind him that in explaining such a subject, science requires our reasoning to be legitimate, as well as our conclusions applicable.

Where is the proof that in this disease the bones are actually affected? Or if they be, that it is by a deficiency of their earthy constituents? In samples that I have seen a number of years ago in Scotland, where the same ideas about the bones being in fault were sometimes entertained, the deficiency seemed rather to be in the organic part, and the condition was only in keeping with the general wasting of the other organic tissues of the body. Would it not be well, therefore, to ascertain by actual examination, the deficiency of the bones in earthy matter, before founding a hypothesis on the presumption of their being so?

Then about the symptoms. Mr. Tuttle says his cows "have a hankering for *bones*, *boards*, *chips* and *old leather*, and will take an old bone, boot or shoe, and chew it for hours." Here the tendency is not to chew bones alone, nor seemingly so much to chew for the sake of swallowing, as for the pleasure merely of chewing; so that if the disease is to be named from one of its symptoms, *chewing sickness* would be the more appropriate, while if we adopt the Professor's second reason for naming it, *boot* and *shoe sickness* is equally good. And again, about the kind of animals attacked. Though commonly cows, they may not always be so; and the disease may be predisposed to by the food being insufficient in quantity, as well as innutritive in quality.

The disease, to be understood, requires physiological more than chemical explanation. I need not tell Professor Nash about the important influence which modern chemists attach to the saliva in the function of digestion. In the ruminating, more than in any other class of animals, digestion depends upon insalivation of the food. Insalivation on rumination, and this again on the muscular action of the rumen or paunch. Both the morbid appetite and the wasting and other symptoms, are the effects or accompaniments of deranged digestion, arising from impeded action of the rumen. The disease known to cattle doctors of the last generation in Scotland, as the "chills," or "stiffires," (and I believe the so-called bone-sickness of America to be the same,) is chronic rheumatism. In rheumatic disease, the white fibro-muscular tissues are the chief seat of the affection. The paunch or rumen of the cow, consists largely of this structure; and is always impaired in its action, when rheumatism assumes its chronic form in the other muscular tissues. When this condition exists for any length of time, rumination becomes languid or all but ceases, and the animal suffering by deprivation of this, the natural stimulus to the salivary secretion, takes to a supplementary cud, in the shape of leather, sticks, bones, or any other resistant fibrous substance within its reach, tough enough to resist its teeth, and not so hard as to hurt them.

Such being the cause and connexions of the ailment, a word about its prevention and cure. I quite agree with your correspondent about the propriety of liberal and nutritious feeding as a means of prevention. Dry and comfortable housing and good shelter if at pasture, are equally so. In rheumatic disease, poverty of flesh is generally the predisposing, and starvation, wet or cold, the exciting cause. As a means of prevention, both these should be avoided, and as a curative agency where the disease has been established, their opposite must be insisted on. But besides these, which should never be neglected, art can do something more. Where the animals are very weak and stiff, a large warm plaster upon the back and loins is advantageous; and the regulating of the bowels, either by judicious change of food, or by mild aperient medicine and vegetable tonics and stimulants will be found of great service. It is not often that acidity of the stomach will be so great as to require alkaline medicine, such as ashes, to be given, but if such were the case, the carbonate of ammonia, for its stimulating as well as antacid effects, is to be preferred. As to ground or dissolved bones in any form, I have no belief in them, nor in the power of the stomach of the cow either to digest or assimilate them. The better way, as suggested by Professor NASH, is to give them in a vegetable condition.

One hint more and I have done. I would advise owners of cattle when they find them addicted to this chewing mania, to see that nothing of a hurtful or poisonous description be left in their way. In Scotland, in the neighborhood of towns or villages from which large quantities of manure is carried, there are every year numbers of cattle killed by eating refuse of white lead, paint cleanings and the like, yet no one would say that these were matters needful to supply their bones. The symptoms of this kind of poisoning are very peculiar, and I may some day give you them in detail, when some of your correspondents get puzzled by the occurrence of a case and apply to you for information. Meantime I am, &c., M. A. CUMING, V. S.

St. John, N. B., March 16, 1854.

Raising Water by Rams.

"I have a never-failing spring, which runs, I should think, a stream large enough to fill 1¼ inch hole without altering, wet or dry. I want to raise it 40 feet and bring it 60 rods. Can a tile and cement pipe be made for this purpose? Would this stream work a ram—and of what size and price? The cost of tile and cement—and cost per rod of laying?"

A stream that will fill an inch pipe with a descent of about 2 feet, will drive successfully a small sized water-ram, and elevate a stream to the height and distance desired. Lead pipe is commonly used for the discharging-pipe, and it may be necessary to use it for such a head, and for so great a distance. But its liability to become corroded and to communicate poison to the water in some instances, is an objection to its use. Pipe made by enclosing tile in water-lime-cement would be too large for this purpose, and its size would make it more liable to burst by the heavy pressure, by presenting a large surface. The best mode of forming a cement pipe for this purpose, is to procure the best hydraulic cement and mix it dry with twice its bulk of clear sand, so that small portions may be quickly moistened into mortar and used before it *sets*. It is laid by means of a trough or mould evenly into the bottom of the ditch, a smooth rod placed in it, and another layer placed above the rod, which is withdrawn just at the moment of setting. Another portion is added to the end of this, and the tube thus formed continued at pleasure. A bore of three-fourths of an inch, with compact and hardened cement sides two inches thick at the greatest pressure, would probably be strong enough—but great care should be taken that there are no holes nor crevices; and that it attains flinty hardness before the water is let in.

We do not know the prices of the smaller rams, but our impression is, some fifteen or twenty dollars. They may be had, doubtless, at the principal agricultural warehouses in the larger cities.

We cannot inform our correspondent of any person who makes it his business to construct cement pipes—nor the cost per rod—but it is unquestionably much cheaper than lead pipe.

Oil Cake for Cattle.

MESSRS. EDITORS—At page 42 of *The Cultivator*, I found, among other inquiries, one in relation to the effect of oil cake in the rearing of calves. Having had some experience in its use for two winters past, I thought that, as queries and experiences tend much to the development of that knowledge of which your journal is so able and attracting an advocate, I would forward an item in reference to the question put by your correspondent.

Oil cake is the substance left in cheese form, from the press, after the oil has been expelled by hydraulic power. In this state it still retains much of its oily nature, and here is probably much of its fattening qualities. The cake is ground into meal, and in this form fed to the stock, upon which they thrive greatly, and are kept in a good healthy condition. When made into slop and left to stand a few hours before using, it expands far beyond the original bulk, so that a very small quantity forms a stiff slop by swelling. I keep one cow only, and am raising a calf which will be one year old next May. My plan in feeding has been to mix one third oil meal and two thirds buckwheat bran, and feed in the form of slop to both cow and calf twice per day. I prefer the slop rather than dry meal, as then there is not the waste which occurs when the mouth of the animal, while chewing, is turned away from the feeding tub, by which much of the dry meal falls and is lost. This might be avoided, and the meal fed dry to all other stock than cows giving milk, by using stanchions to keep the mouth over the feeding tub. It has been found to be a first rate feed for cows, as I have been able to keep mine not only in good condition, but to milk her most of the year. I see no necessity of cows going dry and being only an expense for three or four months of each year, when proper and regular feeding may prevent it. Oil meal is coming more into use in this country as its benefits are being understood. It is now much used mixed with other feed for fattening cattle for the market, and commands a ready sale from persons engaged in this business. Within a year or two its price per ton has been rapidly advancing, and at my last information (about one month since,) was readily bringing $27,50 at the mills.

As your correspondent asks where it may be had, I would state that I obtain mine at Bennington, Vermont, where a pure article is manufactured by SAMUEL ROCKWOOD and by CHA'S. S. COLVIN, who I understand cannot supply the demand for oil meal, since farmers and drovers are beginning to know its value as an article of feed for cattle. Bennington may be reached from Troy, 30 miles, by railroad. When the meal is first offered to cattle unaccustomed to its use, they almost invariably refuse it, but a little effort at first with the dry meal soon leads them to relish it so much so as to take it eagerly. My cow and calf are both in fine condition, and I have about 100 lbs. of meal on hand for which I would not take thrice its weight in other feed. I would say that I have fed the oil meal without being mixed, but find it to do well and last much longer with some other feed mixed with it. E. C. *Lebanon, N. Y.*

We thank E. C. for the above. Oil cake is used in England largely for fattening both cattle and sheep. A considerable portion of its supply comes from this cutry, and is preferred to that made in Europe, owing to the fact that the oil is less thoroughly pressed from it here than there. It is also extensively used in some parts of this country and with the best results. It has been steadily rising in price for twenty years or more, and is now worth about $35 per ton in New-York.—EDS.

Houses of Unburnt Brick.

INQUIRY.—In the Country Gentleman of March 23, an unfavorable opinion is expressed on the mode of building houses of gravel or small stones and mortar. Can any of your readers in the neighborhood of Toronto, U. C., inform us what has been the result with the houses built of clay or unburnt bricks, in that neighborhood, several years since? The *British American Cultivator*, of that town, published a number of articles on the subject in 1842 or 3, with details of the manner and cost of construction, and praised them highly for their cheapness, durability and comfort. A number of houses had been built of that material.

These articles were republished in the Report of the U. S. Patent Office for 1843. The mode of building was highly recommended by Hon. W. H. ELLSWORTH, Commissioner of Patents, and he built a house of the same material on Massachusetts Avenue, Washington.

Has the plan justified the expectations of its advocates? A SUBSCRIBER.

To Destroy Thistles.

The Canada thistle is easily subdued, if they can be plowed. Plow in the fall and sow to wheat, and stock down heavy with the large red clover and timothy. In the spring, as soon as the ground is dry, or the clover is two inches high, sow plaster, as much as you please, from ½ to 4 bushels per acre. Get your wheat off as early as possible; let the clover grow as late in the fall as is convenient: then let nothing but calves or yearlings on to it, nor let it be fed more than just to keep the mice from nesting in it. The better you can make the clover grow, the more fatal to the thistle. P.

Notes for the Month.

New-York State Fair.

At the regular meeting of the Executive Committee of the New-York State Ag. Society on the 6th of April, a resolution was adopted, that the Annual Exhibition for this year, be held on Hamilton Square, in the city of New-York, on the 3d, 4th, 5th and 6th days of October next.

POSTAGE.—We have frequent inquiries as to the postage on the *Country Gentleman* and *The Cultivator*, from which it appears that some postmasters charge twice as much as they should. The postage on the Country Gentleman is *twenty-six cents a year*, payable quarterly in advance *at the office where the paper is received*. The postage of The Cultivator is *six cents a year*, also payable in advance *at the office where the paper is received*. The postage is the same whether paid at the office where mailed, or where received by the subscriber. We are often requested to pre-pay the postage; but this we cannot do without unnecessary trouble, as no regulations have been made by the Post Office Department by which the postmaster here can transmit to the postmaster where the paper is sent, an account of the prepayment; consequently if the postage is prepaid here, we have to pay it weekly on each paper, whereas the subscriber can pay it once a quarter or once a year if he chooses

IMPROVED STOCK.—Those in want of high-bred stock—Durham and Devon cattle, South Down sheep, and Suffolk and Berkshire swine—are referred to the advertisement of L. G. MORRIS, Esq., in this paper. It will be seen that he has come to the conclusion, owing to the extent of his private sales the past year, not to hold his contemplated public sale the coming summer. We are pleased to learn that the demand for his stock, and the prices it has brought, have been in a high degree satisfactory. Mr. M. has spared no expense requisite to obtain the best to be procured abroad, and such liberality should be handsomely rewarded.

☞ The *Working Farmer* is assured that we published the communication of "F. C. L." just as he wrote it, and that we have the writer's name, and vouchers for his veracity and responsibility. We do not see, therefore, but the editor will be compelled to withdraw the credit he has given us for ingenuity in devising this ingenious mode of injuring him. That superphosphate of lime, when properly manufactured, is a valuable fertilizer for certain crops and soils, there can be no doubt. Were we his "untiring constitutional enemy," as he represents us, there would be no necessity of resorting to subterfuge or invention to enable us to publish articles to his discredit. All we should have to do, would be to copy the articles which have already appeared in various agricultural papers, to show that notwithstanding he professes to make an *improved* superphosphate, it has in many instances proved *perfectly useless*. So far, however, from manifesting any desire to injure him, we have refrained from doing this, and have published no statements, even from our own correspondents, without proper vouchers for their authenticity. We have served him as we have Mr. De Burg and other manufacturers—published the opinions of our correspondents in favor of and against both, without prejudice or partiality to either. Little confidence as we have in "Prof." Mapes' science or statements, we have certainly no desire to injure him; but justice to our readers—justice to science, requires the exposure of pretensions not founded in truth; and unpleasant as the duty may be, we shall not refrain from expressing our opinions as occasion may require, even should they prove unacceptable to the editor of the W. F. There is no secret about the manufacture of superphosphate of lime. Mapes *can*, and undoubtedly has made a good article. Any one else can do the same, and at a far less cost than he charges for it. The price of superphosphate of lime in Great Britain is about £6 (less than $30) per ton, and any one who chooses to make it, will find directions, by turning to the 168th page of this volume of the Co. Gent., for making a first-rate article. It is, however, a difficult matter, in most parts of the country, to procure the materials, and it would probably be as well for those who wish to test its merits, to purchase their supply, provided they procure it of a manufacturer upon whose integrity and carefulness they can safely rely.

SHORT HORNS.—John R. Page, Esq., of Sennett, Cayuga county, purchased three very fine heifers, last week, for gentlemen in Cayuga, from the herd of Dr. HERMAN WENDELL of this county. Dr. Wendell also sold a valuable young Durham Bull, to EZRA B. MEECH, Jr. of Vermont, to whom he was sent a few days since. We learn with pleasure that the heifers, and the young bull, Lord Ducie, imported last autumn by Dr. WENDELL, from the herd of Mr. BELL of Mosbro Hall, are doing finely. We also understand that Dr. W. wishes to dispose of the valuable prize bull Meteor (11811) who is now in fine condition.

REMEDY FOR THE POTATO ROT.—Our readers may remember that we published in our last vol. a statement from Mr. BARRETT of Cayuga, that he and his neighbors had prevented all rot in their potatoes for several years, by simply sowing ashes over them at the rate of from two to three bushels per acre, once a week for about six weeks, commencing immediately after the second hoeing. Rev. LYMAN SMITH, of Charlotte, Vt., confirms this statement in a letter to the N. E. Farmer. He says he has prevented the rotting of potatoes by sprinkling the tops with ashes, as soon as they made their appearance, a table spoonful to each hill; after hoeing applying the same amount again. The ashes were applied immediately after a shower, or upon a heavy dew. After such applications he has no rotten potatoes. The experiment is certainly worth trying, and we hope some of our readers will make the application and let us know the result.

☞ We copy the following from the March no. of the *Working Farmer*:—

"CHESS IN WHEAT.—We shall exhibit a head of wheat at that Society, [the U. S. Ag. Society] with the wheat and chess mixed, and on the same centre, and leave it to a committee of the Society to investigate."

The telegraph announced the exhibition, as stated above, but we have looked in vain for any account of the results of the "investigation." Will Prof. Mapes please enlighten us on the subject?

OHIO STATE FAIR.—With a promptitude worthy of note and imitation, the list of premiums, awarding committees and regulations of the Fair of the Ohio State Board of Agriculture, to be held at Newark in September next, is already published. The show ground is to be a portion of the "Ancient Works," still remaining near Newark, which possess great interest both on account of their antiquity, and the mystery which veils the purpose for which they were originally constructed.

Prof. E. S. CARR, of the University of Albany, has been appointed Chemist to the State Ag. Society, in place of Dr. SALISBURY, who has resigned, and removed to New-York.

VEGETABLE WEEDER.—We have been shown a model of a hand cultivator, contrived by Mr. C. W. EMERSON, of Bethlehem, which he calls a "vegetable weeder," that promises to be highly serviceable in the cultivation of all garden crops.

Answers to Inquiries.

IMPROVED BREEDS OF STOCK.—Will you please inform me at what prices I can procure Short-Horn and Devon Cattle—also South Down Sheep and Suffolk pigs, in your state. I see numerous advertisements of improved stock in your paper, but no prices are mentioned. J. A. *Geneseo, Ill.*

Prices of the above breeds of animals vary according to quality—they may be had from $75 to $500 or $1000 for Short Horn and Devon Cattle—$10 to $50 for South Down Sheep, and $5 to $20 for pigs.

In answer to an inquiry on this subject, L. G. MORRIS Esq. of Fordham, informs us that he has sold at private sale during the past year, eleven head of Short Horns under two years old, and several quite young, at an average price of $237,63, and five Devon bull calves at an average of $140. His price for South Down rams and ram lambs, is from $25 to $75—price for Suffolk, Essex, and Berkshire pigs at eight weeks old, $30 per pair, and $40 to 50 each, over that age. His private sales of stock the past year have amounted to about $7000.

HEREFORD CATTLE.—A correspondent in Maryland, inquires—"What is the opinion of Hereford cattle at the North? Owing to the comparatively small number imported, they have not been very extensively tried. So far as we know, they have given entire satisfaction to those who possess them. Our correspondent, and our readers generally we presume, would be glad to hear the opinions of those who have bred them. Mr. CORNING of this city, has a small herd of this breed, of very superior quality, which are universally admired.

CARROTS.—I observe there are three kinds of carrots. Which is the best for winter milch cows? Also the best time to plant them? Yours, &c., S.

The long-orange carrot is generally preferred, probably as much for its rich yellow appearance, as for any real superiority in nutriment. The white carrot, which grows partly out of the ground like the mangel wurtzel, bears larger crops and is more easily harvested. We have ascertained its milk and butter-producing qualities to be of a high character. But from some unexplained cause, the seed which we have received has proved so poor, perhaps either from long-keeping or bad maturity, that we have lately planted the orange exclusively.

Sow *early*—many seeds fail by leaving the operation till the earth is too dry. Let the soil be deep and rich, and previously cleared of weed-seeds, and the crop will be cheap and heavy.

STRAW CUTTERS.—Can you give me an idea of the best description of straw cutter now in use? I have one that was made at Albany, N. Y., which cost $18, which I should be glad to get one dollar for. W. H. VERPELL. *Burford, C. W.*

A perfect straw cutter, at a reasonable price, remains yet to be invented. The "green hide" cutters, made by Ruggles & Co. and others, are nearly faultless in every particular but one—they do not cut short enough. For moderate price and durability, we have no objections to make to them. Those forms of construction having a sliding frame and knife, driven by a fly wheel, usually work well for a time—but a slight bend in the blade or wearing in the frame, makes them cut badly. Heavy and stiff knives, attached directly to the fly wheel, with the length of the cut regulated by feeding rollers and cog-work, have generally accomplished the purpose well, but such a machine well made cannot be had for much less than thirty dollars. The field is yet open for inventors.

POTATOES. &c.—*W. B.* We presume the Dover potato to which you allude, can be procured of Mr. J. C. TIFFANY, Coxsackie, N. Y. We have never seen them, and know nothing of their qualities. The best early potato cultivated in this vicinity, is what is called the *Mountain June.* They are of fair quality, productive, and as little liable to rot as any potato we have cultivated. Good garden seeds, can be procured at all seed stores.

SWINE FED ON BEACH-NUTS.—A correspondent, who has wintered his breeding sows on beach-nuts, wishes to know if any bad results are likely to take place in consequence of this practice, to those who are expected soon to have pigs. He has been informed that the pigs will die, or have no hair on them. As we have had no experience in this mode of feeding, perhaps some of our correspondents will inform us whether it is necessary to resume the feeding of grain, roots, &c. in order to avoid so strange a disaster—our belief is, however, that our inquirer has nothing to fear—the only bad result being from the exposure and scant food which animals so treated too often receive.

MESSRS. EDITORS—Will you have the goodness to answer me through the medium of your valuable paper, the following questions:

I am a wool grower, and have in my flock of sheep the following kinds—the Silesian, French, Guadaloupe, and Spanish Merinoes. Now what I wish to know is, which of the above kinds is the most profitable to grow wool from, according to the weight of carcass and expense of keeping, and which will produce the most pounds of wool? By answering the above question you will confer a very great favor upon a constant reader of the Cultivator. L. B. SPENCER. *Windsor, Vt., March* 10, 1854.

We have no data from which we can solve the question of our correspondent. If any of our readers can do it, we shall be glad to hear from them.—EDS.

REAPERS AND MOWERS.—Can you tell me whose reaping machine is best, and whether there is a machine with a mower and reaper combined that is as good as the reaper without the mower? B. M. BRANNER. *Mossy Creek, Tenn, March* 4.

Experience is yet limited, so far as a comparative test of the different reapers is concerned. Hussey's, McCormick's, Burrall's, Atkin's Self-raker, and some others, appear to be very nearly equal in merit, in ordinary cutting, so far as we can judge by superficial observation. We have never seen a reaper used for mowing that did not sometimes fail badly. Ketchum's Mower, we have never known to fail in doing good service, and we have often regretted his machine had not been sent to England for experiment.

Suffolk Pigs.

THE subscribers are now prepared to receive orders for pure Suffolk Pigs, bred from Stock Imported in 1848 by the late William Stickney, and by the subscribers in January, also an Importation of 12 in October 1853.

Address, JOSIAH STICKNEY, Watertown, or ISAAC STICKNEY, Boston, Mass.

Boston, April, 1854—ap13—w1am3t—m1t

Brahma Pootra Eggs.

THE subscriber offers for sale Eggs of the above variety, bred from a few selected fowls and warranted pure

Price $5 per dozen, packed and forwarded by Express to any part of the Union. WILLIAM B. SMYTH,

April 13—w3tm1t New Britain, Connecticut.

Brahma Pootra and White Shanghai Eggs.

THE subscriber will furnish Eggs from fowls of the above named varieties at the following rates, viz:

Brahma Pootra, (grey Shanghai,).... $3 per dozen.
White Shanghai,..... 2 "

N. B. The fowls in my possession are from the best stock to be had in the country. The White Shanghais are of Dr. E. Wight's importation, and the Brahmas from that of Mr. Hatch Address, post paid,

JOSEPH G. HILDRETH,

March 30—w2tm1t* No. 9 Franklin st., Boston, Mass.

Pure Bred Stock at Private Sale,

At Mount Fordham, Westchester county, New-York, Eleven Miles from City Hall, N. Y., by Harlem Railroad Cars.

HAVING met with more success than I anticipated the past year, with the Catalogue of male animals at Private sale, is the reason for offering this lot of animals, AND MY JUNE SALE BY AUCTION, WILL NOT TAKE PLACE. A full d scriptive Catalogue with prices attached, will be published on the fifteenth of April, and I intend to be at home myself to see any who may call. I will sell at private sale, about 18 Short-Horns, 6 of which are young Bulls and Bull Calves. The Cows and Heifers old enough will be in Calf to the Celebrated Imported Bull "BALCO," (9918.) or Imported "ROMEO," wi ner of the first Prize at Saratoga, in 1853; and also at American Institute the same year.

The young Bulls and Bull Calves, are some of them from imported Cows, and sired in England; the others are sired by the Imported Marquis of Carrabas, (11789.) winner of the first Prize at Saratoga, the past year, as a two year old.

Also, about 10 head of Devons, consisting of a yearling Bull, sired by MAJOR, and 5 Bull Calves, sired by my imported first Prize Bull, FRANK QUARTLY, and several of them from imported Cows. The Cows and Heifers old enough, will be in Calf to FRANK QUARTLY. Also 6 or 8 Suffolk Sows; and several young Suffolk and Essex Boars. Also, 2 Southdown Rams, Imported direct from Jonas Webb; and 6 Yearling Rams, all bred by me, from Stock on both sides, imported from Jonas Webb. Catalogues will be forwarded by Mail if desired.

All Animals delivered on SHIP-BOARD, or RAIL CAR in the City of New-York, free of expense to the purchaser The Devons are at my Herdsdale Farm, 12 miles north, to which place I will take persons both to and from.

MY FRIEND MR. N. J. BECAR, who is interested in several of my Importations, will also sell about 10 head of Short-Horns, consisting of 4 young Bulls, and 5 or 6 Females. His young Bulls are also several of them from imported Cows, and sired by the LORD OF ERYHOLMNE, (12205,) and the celebrated first Prize Imported Bull ROMEO. Mr. Becar's Cows and Heifers are in Calf to the imported Bull, MARQUIS OF CARRABAS, (11789.) Mr. Becar can be seen at his Store, No. 187 Broadway, New-York, at which place he will make arrangements to go to his Farm, at Smithtown, Long Island. His Animals will be entered in the same Catalogue with mine, which can be obtained by addressing him at his Store, or me at Mount Fordham. His animals will be delivered in the same manner as mine. Our Importations have been in almost all cases made at the same time, and are of equal merit, excepting that I have more in number. ☞ Terms, cash on delivery. L. G. MORRIS.

March 30, 1854—w&m2m

Imported Horse Consternation.

THIS well known, thorough bred horse will stand the present season, as heretofore, at the farm of the subscriber, one mile west of Syracuse. For full pedigree, see Derby and Miller's edition of Youatt. *Terms*, $10 the season; $15 to insure, payable in advance in all cases. Good pasturage furnished at 50 cents per week. Mares at risk of owners in all respects. No mare will be served that is either ringboned, spavined or blind. J. B. BURNET.

Syracuse, May 1, 1854—w2m—m3t

Black Hawk Horse Raven.

THIS horse, one of the most distinguished of the Black Hawk family, will stand at the stables of the subscriber the coming season. Terms, twelve dollars the season—Insurance by agreement. Good pasturage afforded at a reasonable price. Accidents at the risk of the owners, though great care will be used to prevent their occurrence.

The subscriber pays much attention to the breeding of fine animals. He is the owner of the beautiful horse Falcon, the thorough bred mare Latona (purchased of the late Mr. Gibbons,) and others. The celebrated horses Vermonter, at Burlington, Iowa, and Champlain at Hartford, Trumbull county, Ohio, were bred by him. He has for sale a very valuable Black Hawk mare, four years old in June next.

ROBBINS BATTELL.

Norfolk, Conn., March 30. 1854. ap6w1tm2t

The Original Black Hawk

WILL be kept the coming season at his old stand, the stable of DAVID HILL, in Bridport, Vermont. His services will be limited to fifty mares Terms $50 the season.

Those wishing his services should send their names early, as those sending first will be first served.

DAVID HILL, Agent.

Bridport, Vt., April 1—m2t*

Langstroth's Movable Comb Bee Hive.

PATENTED Oct. 5th, 1852.—Each Comb in the Hive is attached to a separate movable frame, and in less than five minutes they may be all taken out, without cutting or injuring them, or at all enraging the bees. Weak stocks may be quickly strengthened by helping them to honey and maturing brood from stronger ones.

Queenless colonies may be rescued from certain ruin by supplying them with the means of obtaining another queen; and the ravages of the moth effectually prevented, as at any time the hive may be readily examined, and all worms, &c., removed from the combs. New colonies may be formed in less time than is usually required to hive a natural swarm, or the hive may be used as a non-swarmer, or managed on the common swarming plan.

The surplus honey may be taken from the interior of the hive on the frames or in upper boxes or glasses in the most convenient, beautiful and saleable forms. Colonies may be safely transferred from any other hive to this, at any season of the year, from April to October, as the brood, combs, honey and all the contents of the hive are transferred with them, and securely fastened in the frames.

We are now prepared to sell state, town, county and individual rights, to make, vend and use these hives on reasonable terms. The price for individual rights, which will entitle the purchaser to make the hive for his own use, is five dollars. We can also furnish hives to all who wish. Price from two to five dollars. Upon the receipt of nine dollars we will send the right, together with a beautiful hive, with glass on four sides, showing all the combs. For ten dollars the right and a well made hive which will accommodate two swarms with glass on the back side only. For seven dollars the right and a well made hive without glass, which any one can make who can use the simplest tools.

Agents wanted for the sale of the above rights. To those who can furnish good testimonials of character, qualifications and responsibility, a liberal commission will be paid.

All communications addressed to J. BEALS, *Greenfield, Mass.*, will meet with prompt attention.

For one dollar, postage paid, Langstroth's book entitled the Hive and Honey Bee, will be sent free by mail.

J. BEALS,

April 13—w4tm2t Att'y for Rev. L. L. Langstroth

The Cleveland Bay Stallion, Young Emigrant,

WILL stand for mares the ensuing season, at the stable of the subscriber, in the west part of the town of Glenville, near Hoffman's Ferry, Schenectady county, N. Y.

Young Emigrant is seven years old this spring, 16½ hands high, is a beautiful mahogany bay with black legs, mane and tail, and his symmetry of form, justness of proportion and strength of bone and muscle render him an important consideration to those who wish to make real improvement in that noble animal, the horse. He was got by Emigrant. This celebrated stallion is of the Cleveland Bay breed, and was brought to this country by the late John Walkington. Emigrant was got by Defence, the property of Mr. Parker, of Wobut Mills, near Poclington, Yorkshire. Defence was got by Fortunate, the property of Henry Harrison, of South Cliff, near Market Weighton, Yorkshire. Defence's Dam was by Farmers Interest, the property of Mr. Hotman, of Newton, Yorkshire; his grand dam was by old Blacklock, the property of Mr. Kirby, of the city of New-York. Emigrant's dam was got by Candidate, the property of J. Hance, of Spaldington, near Howden, Yorkshire. Candidate's dam was by old Grogg, who was allowed to be one of the best bred stallions that ever trod Yorkshire. Young Emigrant was purchased of A. M. Starkweather, of Orleans county, N. Y., when three years old. His dam is a bay with black legs, main and tail, and his grand dam the same color; his grand sire was called Whalebone—was also a bay and very large.

Terms, $6 the season and $8 to insure a foal. All moneys to be paid on the first of March next. All accidents and escapes at the risk of owners of mares.

ISAAC D. VAN EPS.

May 1, 1854—m1t* Glenville, Schenectady Co., N. Y.

For Sale in Scioto Valley, Ohio.

3,500 ACRES OF LAND, with Steam Saw-mill, for sale in Scioto Valley, Ohio, and lying on the Ohio canal.

This is an opportunity seldom to be met with, and will be sold at a bargain.

A term of years will be given for most of the purchase money.

Persons desirous of purchasing, by calling on or addressing the subscriber at Chillicothe, Ohio, will be prompily attended to, and full description of premises given.

March 30—w4tm1t* H. H. HOAG.

RICH'D H. PEASE, Successor to Emery & Co.,

SOLE PROPRIETOR OF THE

ALBANY AGRICULTURAL WORKS, WARE-HOUSE AND SEED STORE.

Manufactory, on Hamilton, Liberty, and Union Streets—Warehouse and Seed Store, Nos. 369 and 371 Broadway, Albany.

Emery's Patent Railroad Horse Power.

THIS Horse Power has, for several successive years, been subjected to many severe tests, both scientific and practical, in public and private, under every variety of circumstances and against the strongest competition throughout the United States, including California and Oregon. It has also met with great favor in Great Britain, as well as many of the continental countries of Europe, Asia and Africa; its superiority has been established in every instance beyond a contingency.

Among the peculiar properties of this Power, not possessed by any other in use, and which give to it its chief merit and popularity, are the following: The Gears are outside the Power, (not under the horses,) easily accessible and readily cared for. There being but two gears and one interval or converge gear and all with their teeth made very accurately upon the most approved form, insures strength as well as smooth and equal action, and avoids unnatural wear and friction.

These gears, as well as the pully, may be instantly transposed, by means of their couplings and fastenings, from side to side, or to produce different degrees of force and motion, thereby allowing a slower pace for the horses, without, in any degree, lessening the effect. This last feature, together with a longer platform for the horses, is of great importance, and are among its most prominent features.

Very little increased friction or retardation is produced by any amount of wear, as is the case with most other Powers.

All the gears, pulleys, &c., are so constructed that the greatest stress, in all cases, is applied to those of the greatest diameters, their strength being proportioned to the squares of their respective velocities; while with most others the opposite state of facts exist, and necessarily the weakest parts are those most exposed to wear and difficult of access and care. Again, the sections of the endless platform being longer make a stronger and more durable plank floor for the horses. The platform returns over large circuits at each end, and is easily kept adjusted as to tightness, by means of tightening bolts at the forward end.

Prices for 1854.

"Emery's Patent Changeable Horse Power" Thresher, Separator, for two horses,	$160
Do. for one horse,	128
Do. Two-horse Power, with Thresher and Cleaner combined,	235
Common Rack and Pinion Power Thresher, &c., 2 horses,	150
Do. one horse,	120
Emery's Patent Two-horse Power including band wheel,	116
Do. one-horse do,	85
Common Rack and Pinion, two-horse,	105
Do. one-horse,	75
Threshing Machine, with Separator and fixtures, 26 inch cylinder,	40
Do. 24 inch cylinder,	37
Sett of Bands for Machine, with extras, &c,	5
Fanning Mills, fitted for Power,	$26, 28, 30, 32
Portable Circular Saw Mills, with 24 inch circular saw for wood cutting, &c.,	37
Extra table and saw for slitting boards and fencing stuff, and general shop use,	7
Upright or Felloe Saw, for wheelrights' use,	40
Cross-cut Saw, arrangements greatly improved to attach to Power for cutting logs,	25
Churn attachment to Power, for one or more churns,	12
Feed Mills, with iron plates,	40
French Burr Stone Mills, for farm or mill use,	$120 to 300
Power Corn Sheller,	40 to 55
Clover Huller,	30 to 100
Improved Dog Powers,	12 to 15

TERMS—Cash or approved notes or acceptances, with interest, payable within four months, in Albany, New York, Boston, Philadelphia or Baltimore, as may best suit the purchaser.

As proof of the conceded excellence of this Power in its construction and actual performance, the public are referred to the numerous awards and decisions of juries, judges and committees, at all the principal Fairs and Exhibitions in this country, comprising those of nearly half the States in the Union, among which are the following, where it received the 1st premium:

New-York State Ag. Society,	1853, 1852, 1851, 1850
Ohio State Board of Agriculture,	1853, 1852, 1851, 1850
Michigan State Agricultural Society,	1853, 1852, 1851
Indiana, Illinois, Pennsylvania, Maryland and Missouri State Agricultural Society,	1853
American Institute,	1852, 1851
Canada Provincial Society,	1852, 1851
Exhibition of Industry of all Nations, in New-York,	1853

Many more flattering testimonials might be produced, but as all are sold with a liberal warrantee, it is unnecessary.

The subscriber has purchased the entire stock and fixtures of the Warehouse 369 and 371 Broadway, and Manufactory of the late firm of EMERY & Co., of this city, and intends to carry on the business of manufacturing and selling Agricultural Implements. He will be assisted by Henry D and Wm B. Emery; the former in the general business, and the latter in superintending the manufactory.

The subscriber will also furnish to order and keep constantly on hand, a good assortment of the most approved machinery for the farm and plantation, including Reaping and Mowing Machines, Grist Mills, Power Corn Shellers, Corn Hullers, &c., together with a complete stock of Implements designed for the Garden, Farm and Plantation, in all the various departments, with a full and complete assortment of Field and Garden Seeds—as Clover, Timothy, Blue Grass, Orchard Grass, &c. For further particulars, address the subscriber who hopes by due attention to business and a desire to please those who feel disposed to favor him with their orders, to merit a share of the patronage of the agricultural community.

RICHARD H. PEASE.

Albany, April 15, 1854.

Thomas Gould,

BREEDER OF DEVON CATTLE, Suffolk Swine, Madagascar or Lop-Eared Rabbits, and choice and fancy Poultry, Aurora, Cayuga county, N. Y. Mar. 23—w&mtf

Buchanan on Grape Culture,

AND

LONGWORTH ON THE STRAWBERRY.

THIS DAY PUBLISHED, THE FIFTH EDITION, REVISED.

One volume 12mo, *Cloth*, 63c.

THIS VOLUME SHOULD BE IN THE HANDS OF every cultivator of these delicious fruits, for it embodies, in a compact and available form, the experience of accomplished and practical Horticulturists on subjects which have come directly under their own observation for a long series of years.

Of a former edition of "Buchanan on the Grape." we subjoin a few

Notices of the Press.

Mr. Downing in his Horticulturist says: "It deals more with facts, with actual experience, and observation, and less with speculation, supposition and belief, than anything on this topic that has yet appeared in the United States. In other words, a man may take it, and plant a vineyard, and raise grapes with success."

"Furnishes, in a small space, a very great amount of instructive information relative to the culture of the Grape."—*Farmer's and Planter's Encyclypædia.*

"Will be found to convey the most opportune and valuable instruction, to all interested in the subject.—*Neill's Fruit and Flower Garden.*

Those who desire the book sent by Mail, will receive it pre-paid, by remitting the price, by letter post-paid, to the Publishers. MOORE, ANDERSON & Co., Cincinnati.

For sale by A. S. BARNES & Co., IVISON & PHINNEY, and C. M. SAXTON, New-York Mar. 30—w2tm1t

Field and Garden Seeds.

SPRING WHEAT, Barley, Oats, Grass Seeds, Clover, Fresh Ray Grass, Lucern and White Clover just imported.

Excelsior Potatoes, a new and improved variety, Belgian Carrot, Sugar Beet, &c.

Garden Seeds of all kinds, including Flower Seeds.

R. L. ALLEN,

Feb. 16—m3tweowtf 189 & 191 Water-st., New-York.

Early Excelsior Potato.

THIS is a new and very superior sort. They are as early as the June potato, grow above the average size, are mealy and palatable, and have kept better than any other variety planted in this vicinity. The rot has never been known among them. R. L. ALLEN,

189 and 191 Water-st., New-York.

March 9—w3teow—m2t

Garden Implements.

HEDGE. LONG HANDLE AND SLIDING PRUNING Shears; Budding and Edging Knives; Pruning Hatchets, saws and knives; pruning, vine and flower scissors; bill and Milton hooks; lawn and garden rakes; garden scufflers, hoes of great variety, shovels and spades; hand engines, which throw water forty feet or more, syringes and water pots; grafting chisels, tree scrapers, and caterpillar brushes; transplanting trowels, reels; hand plow and cultivator, very useful to work between rows of vegetables, together with a large assortment of other implements too numerous to mention. R. L. ALLEN,

Feb. 16—m3tweowtf 187 & 191 Water-st., New-York.

Live Stock Agency.

IN compliance with repeated solicitation, the subscriber offers his services for the purchase of Horses, Cattle, Sheep, Swine and Poultry. His long acquaintance with different breeds and *breeders* of these animals, gives him superior facilities for procuring the best.

SANFORD HOWARD,

Office of the Boston Cultivator, Boston, Mass.

March 9—w6tm3t

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by

Feb. 1—m1y. B. V. FRENCH. Braintree, Mass.

Devons!

I HAVE two Devon Bulls for sale, one two and the other three past, descended from the Hurlburt stock of Connecticut, of good size and build. R. S. WATSON.

Port Kent, Essex co., N. Y.—March 2—w3tm2t

New and Improved Plows,

INCLUDING the Deep Tiller, Flat Furrow, Self Sharpener, Centre Draft, Side Hill, Subsoil, Double Mold, Potato, and Cultivator Plow.

Harrows, Rollers, Seed Sowers, Cultivators and a large assortment of all other Agricultural Implements.

R. L. ALLEN,

Feb. 23—m3tweowtf 189 & 191 Water-St. New-York.

Plows! Plows!

PROUTY & MEARS' Centre Draught Plows of all the various sizes. *Rich's* Iron Beam do do.

Michigan Sod and Subsoil Plow.

Prof. Mapes' Improved Subsoil Plow.

For sale at LONGETT & GRIFFING'S,

March 16—m2t 25 Cliff-street, New-York.

North River Agricultural Warehouse and Seed Store.

No. 53 Cortland-Street, New-York,

WHERE may be found a large and complete assortment of the best and latest improved Agricultural and Horticultural Implements, Field and Garden Seeds, Fruit and Ornamental Trees. Fertilizers of all kinds, &c., &c.

March 1—mtf GEO. H. BARR & Co.

Basket Willow.

CUTTINGS of the best European OSIER WILLOW will be furnished by the subscriber at $3 per thousand. They can be forwarded during the winter to any part of the Union. Orders will meet with prompt attention.

Address C. P. WILLIAMS,

Jan. 1—mtf Albany, N. Y

Prouty & Mears' Plow.

A LARGE assortment of these celebrated Plows can be found at the North River Agricultural Warehouse and Seed Store, 53 Cortlandt-street, New-York.

March 1—mtf GEO. H. BARR & Co.

McCormick's Reaping & Mowing Machine.

I AM now manufacturing 1,500 Reaping and Mowing Machines for 1854, and farmers who want machines are requested to send in their orders early. Last year I had not a supply, although I had 1,500 in the market.

I offer my large experience (both in this country and in Europe) for the last fifteen years or more, in this business, as the safest guarantee the farmer can have in the purchase of a machine of this kind, notwithstanding the pretensions of others, whose limited experience in this business accounts for their *large promises.*

Deeming it useless to insert long advertisements in the newspapers, I shall be pleased to furnish applicants with my printed circular.

Some important improvements have been made, while the machine will be found as simple and efficient as a machine of the kind can be. The important points that will present themselves in these machines will be, perfect simplicity, ease of repairing, durability, and adaptation to the wants of the farmer as a reaper and mower. I shall continue the use of the wrought iron beam, which will be found very important in mowing, because of the friction upon the ground, and liability to wear and tear a wooden beam or any sheet iron lining that may be used upon it. Another very important advantage which I claim for my combined machine is, that it can be readily changed so as to cut any desired height of stubble, as a reaper or mower, by simply removing three bolts. This principle will be found wanting in other machines, though valuable upon rough ground, or for mowing barley, or lodged oats, timothy seed, clover seed, &c., or where the ground may not be firm, and there be liability in the wheels to sink, and the cutter to be brought in contact with the ground, sand, gravel, &c. With my combined machine, the farmer has also the advantage of a Reel in mowing, which admits of a slow walk to the horses, and is especially valuable when the wind interferes with the successful operation of the machine.

The public are now especially cautioned to beware of *Seymour & Morgan's* "NEW-YORK REAPER," also made by Warder & Brocaw, of Ohio. These men have been selling my machines, and taking premiums with them, (at the Ohio trial in 1853 and elsewhere,) *though under an injunction, the second time, since the late re-issue of my patent in April last,* and in addition to a verdict of $20,000 for past infringements.

☞ Sundry other parties will soon be held to strict account for their infringements, under this patent, which makes them just as liable to be enjoined as Seymour & Morgan.

C. H. McCORMICK,

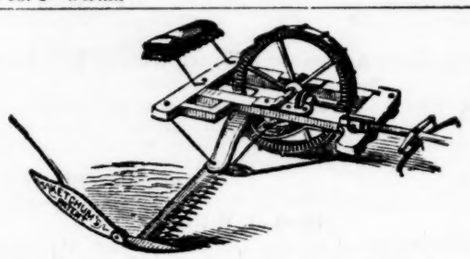
April 1—m2t By WM. S. McCORMICK.

Hallenbeck's Mowing Machine.

THE subscriber having perfected and tested his new and improved Mowing Machine, now offers it to the public for the coming season, confident that it will not fail to give perfect satisfaction. It is simple in construction, light of draft, and perfectly free from clogging. They are built at present for me by Deering & Dederick, corner of Bleecker and Franklin streets, Albany, N. Y. A large number will be made, and are offered to the public, warranted to operate well and to give satisfaction. Persons intending to buy mowing machines will find it to their advantage to examine mine before purchasing.

For further particulars, address the subscriber at Albany, N. Y. MARTIN HALLENBECK.

Feb. 2—w&mtf



Ketchum's Improved Mowing Machine,

WITH ENTIRE CHANGE OF GEAR,

The only Successful Mower now known.

KETCHUM'S IMPROVED MACHINE, which we are building for the harvest of '54, was thoroughly tested last season, and the advantages gained by our change of Gear are in all respects as we designed, viz: *durability, convenience and ease of action.* The shafts now have bearings at both ends, which overcomes all cramping and cutting away of boxing. A counter balance is attached to the crank shaft, which gives it a steady and uniform motion. Each Machine can be thrown out of gear; there is great convenience in getting at each and every nut, all of them being *on upper side of the frame;* oil cups are attached to all the bearings, which, by the use of a wad of cotton, will hold oil for a long time, as well as protect the bearings from dust, grit, &c.; the finger bar is lined with iron its full width, which protects it from wear.

These and various other additions for strength, durability, &c., makes it the most simple and perfect agricultural implement in use. They weigh about 750 lbs. each, and can easily be carried in a one-horse wagon.

It requires not over ten minutes to get one ready for operation, there being but two bolts, (besides the pole bolts,) to be secured, to have one ready for use. They will cut all kinds of grass, and operate well on uneven or rolling lands, or where there are dead furrows. This Machine took the highest award, with *special approbation*, at the World's Fair; it also received, during last season, one silver and four gold medals, and various other flattering and substantial testimonials of approval. We have spared neither pains nor money to make this Machine deserving of public favor, and hope to be able the coming season to supply the great and increasing demand.

We take this occasion to caution farmers against buying *untried* Mowers, if they do (as was the case with many last year) they incur loss, vexation and disappointment.

If any parts are wanted to repair any Machine we have sold, or may hereafter sell, they will be furnished and only manufacturer's cost for the same be charged.

☞ In all cases where extras are wanted, be sure to give us the *number of your Machine.*

Warranty:—That said Machines are capable of cutting and spreading, with one span of horses and driver, from ten to fifteen acres per day of *any kind of grass*, and do it as well as is done with a scythe by the best of mowers.

The price of the Mower, with two sets of knives and extras, is $110 cash, in Buffalo, delivered on board of boat or cars free of charge.

Office and Shop, corner of Chicago-street and Hamburgh canal, near the Eastern R. R. Depot, Buffalo, N. Y.

HOWARD & CO., Manufacturers and Proprietors.

The Mower is also manufactured by RUGGLES, NOURSE, MASON & Co., at Worcester, Mass., for the New England States.

By SEYMOUR, MORGAN & Co., Brockport, N. Y., for Illinois, Iowa and Michigan.

By WARDER & BROKAW, Springfield, O., for Ohio and Kentucky. March 16—w2m, m3t

United States Agricultural Warehouse and Seedstore

No. 197 Water street, near Fulton street, New-York.

MERCHANTS, Planters and Farmers, in want of AGRICULTURAL and HORTICULTURAL IMPLEMENTS or SEEDS, for shipping, plantation, farm or garden purposes, will please call and examine our extensive and superior assortment of goods in the above line, unsurpassed by any other house in the United States, for finish, material and workmanship, and of the most approved patterns; all of which we will sell on as good terms as any other house in this city.

We have among our assortment the far-famed and unequaled EAGLE D. & F. PLOWS, warranted to draw lighter and do as good work in sod or stubble ground, as any other Plow to be found in the United States.

We also have the highest premium Straw Cutters, Fan Mills, Grain Mills, Premium Stalk Cutters, Horse Powers, Threshers and Separators of different kinds; Ketchum's celebrated Mowing Machine, unsurpassed; Hussey's Reaping Machine—also, McCormick's Cotton Gins, Cotton Presses, Hay and Hide Presses, Brick Machines, Harrows of all kinds, Sugar Mills for plantation use, Sugar Mills for grocer's use, Hand Store Trucks of all kinds, Mule Carts, Horse Carts, Farm Wagons, Wheel Barrows, Coal and Canal Barrows. In fact we have everything for shippping or using on plantation, arm or garden. JOHN MAYHER & CO.

N. B. Guano, Bone Dust, Poudrette, Superphosphate of Lime, and other fertilisers. Jan 1, 1853—m&wtf

Hot Houses and Green Houses.

NEW EDITION OF R. B. LEUCHAR'S celebrated Treatise on the Construction, Heating and Ventilation of *Hot Houses, Green Houses, Graperies*, and other *Horticultural Structures*, with practical directions for their management in regard to *Light, Heat and Air*, with numerous *engravings*.

Published by JOHN P. JEWETT & CO., Boston.

For sale by the trade generally and at seed stores.

March 2—w6t

Valuable Farm for Sale.

THE FARM KNOWN AS HILLSIDE, in the Town of Macedon, county of Wayne, N. Y., situated two miles from Macedon village (through which the Syracuse and Rochester Railway passes,) and on the Plank road leading to Victor, is offered for sale.

It consists of *ninety-one* acres, eighteen of which are in woodland, forty of intervale of the finest quality, and the remainder of superior upland.

The supply of water is unusually good.

The Orchard is mostly of young trees, and the selection is the result of extensive acquaintance with fruits for many years.

The Apple Orchard of some Two Hundred trees comprises most of the sterling old varieties, and such new ones as were thought worthy of their company.

The Peach Orchard has some Three Hundred trees mostly in bearing, with the fullest succession of fruit possible

The Apricot Orchard of One Hundred trees, has eighty trees of the "Golden," and the remainder of well known kinds.

The Pear Orchard has upward of One Hundred standards, forty of which are in bearing, and about Two Hundred Dwarfs, mainly of the celebrated Duchess Angouleme.

The Cherry Orchard is not surpassed by any in the State, having about sixty trees, and upwards of thirty varieties.

There is a Quince Orchard of about seventy trees, and a choice selection of Plums, Nectarines, Thin Shelled Almonds, &c., &c. There are two acres of Strawberries, one-fourth of an acre of Rhubarb, Gooseberries, Grapes, Currants, Raspberries, Asparagus, &c., &c.

The buildings consist of a new and very superior dwelling, built with every regard to permanence, warmth, ventilation and convenience. Parlor and dining room, each fourteen by eighteen feet, a library and five large bed rooms, with three smaller ones—a bath room, kitchen, wash-house, dairy, pantries, &c., with a deep Verandah on each front. Nine rooms are thoroughly warmed by a furnace in the basement.

The large Lawn is planted with a variety of rare and desirable ornamental trees and shrubs.

The Farm and Horse barns are nearly new, and two laborer's cottages are conveniently situated on the property.

Whether reference be had to beauty of situation, fertility of soil, proximity to market, or to an accumulation of those comforts which time and labor alone produce, this will be found a rare opportunity for profitable investment.

The terms of sale can be known by applying to J. D. HUSBANDS, Rochester; ASA B. SMITH, Macedon, or to the subscriber. WILLIAM R. SMITH.

Wilmington, Del., 2d Month, 1854. Feb. 23—w2tm2t

Fertilizers.

PERUVIAN GUANO, Super-phosphate of Lime of the following brands, Deburgh, Paterson, and Wood, Bone Dust—sawings or meal, turnings and ground, Potash Scrapings, Pulverized Charcoal, Ground Land Plaster, Sulphuric Acid, Poudrette, For sale at the State Agricultural Warehouse of

LONGETT & GRIFFIN,
Jan. 17—w2m—m4t 25 Cliff street, New-York.

Fertilizers.

SUPERPHOSPHATE OF LIME, NO. 1, of the best manufacture; Peruvian Guano, fresh, No. 1; Poudrette; Plaster of Paris, &c. R. L. ALLEN,
Feb. 23—m3tweowtf 189 & 191 Water-st, New-York.

Fertilizers.

BEST Peruvian Guano—
Super-Phosphate of Lime, "DeBurg's No. 1"—
Poudrette, of the best quality—
Ground Plaster, suitable for agricultural purposes—
Ground Bone, Bone Dust, and Burnt Bone.
Also, Grass Seeds of reliable quality, at the lowest market price. GEO. DAVENPORT, 5 Commercial,
Feb. 9, 1854—w& mtf cor. of Chatham st., Boston.

Manures.

PERUVIAN GUANO, Improved Superphosphate of Lime, Bone Dust, Bone Black, Sulphuric Acid, Potash, Poudrette, Plaster of Paris, Charcoal, &c., &c., for sale by

GEO. H. BARR & Co.,
March 1—mtf 53 Cortlandt-street, New-York.

Super-Phosphate of Lime.

THIS celebrated fertilizer, where it has been fairly tested the last year, has been found equal, and in many cases superior to the best Peruvian guano, in its immediate effect, and much more permanently beneficial to the land. It is adapted to any soil in which there is a deficiency of *phosphate*, which is often the case. All crops are benefited by its application It is composed of ground bones, decomposed by sulphuric acid, to which is added a due proportion of Peruvian guano, sulphate of ammonia, &c.

For sale, with *full* directions for use, in bags of 150 pounds each. No charge for package. All bags will be branded "C. B. DeBurg, No. 1 Super-Phosphate of Lime."

GEO. DAVENPORT, Ag't for manufacturer,
5 Commercial, cor. of Chatham st., Boston.
Feb. 16, 1854—w& mtf

Superphosphate.

NO expense has been spared in the combination of this most fertilizing manure, which contains the natural properties of plants. It is superior to most of the articles offered for sale under the same name, and is inferior to none, although sold at a much lower price. It is put up in bags, at $40 per ton, of 2,000 lbs., cash.

Office of the New-York Superphosphate Manufacturing Company, No. 159 West-street, New-York.
March 1—m3t VICTOR R. KNOWLES, Agent.

Kentish's Prepared or Artificial Guano.

Twenty Dollars per Ton.

POTATO ROT.—I have used "Kentish's Prepared Guano" this season on potatoes. My crop was large and all sound. Where I did not use it, the potatoes were all rotten and worthless. My neighbors also, who have not used this fertilizer, have not raised a saleable potatoe this year. I consider it a preventive of Rot. G. PREAUT.
Westchester Co., N Y., Sept. 29, 1850.

Extract of a Letter from E. B. Addison.

Alexandria Co., Va., April 22, 1851.

Dr. John H. Bayne, President of Prince George's Co. Agricultural Society, Maryland, has desired me to inform you that last spring he used African Guano, Poudrette, Peruvian Guano, and your prepared Guano on Potatos. The first two were distanced, but the result from the Peruvian and yours, was about equal. He pronounces your Prepared Guano to be a very excellent article, and esteems it highly.

Richmond Co., N. Y., July 27, 1849.

"I have made use of Kentish's Prepared Guano on potatos, cabbages, cauliflowers, corn and grapes. I found the result much more satisfactory and the produce much larger than where I used imported Guano or any other kind of manure. EDWARD JENNINGS, Gardener."

It is equally fertilizing on all crops. See the numerous certificates on this subject in the printed circular to be obtained at KENTISH & CO'S Depot,
March 1—m3t No. 159 West-st., City of New-York.

Genuine Superphosphate of Lime.

THE subscriber has now on hand and is constantly manufacturing, at his works in Middletown, Conn., *Superphosphate of Lime*, which he warrants free from any adulteration, and equal, if not superior, to any in the market. It is made of *bones* prepared in the most approved manner, put up in substantial bags for transportation, and is furnished promptly to order or at the works.

He also manufactures, and has constantly on hand for the market, *Bone Dust* of a superior quality.

These fertilizers have been thoroughly tested by careful and experienced agriculturists in this vicinity, and have given general satisfaction. ANDREW COE,
April 1—m3t Middletown, Conn.

Ground Bone.

THE subscribers are now prepared to furnish Bone Dust by the barrel or ton in its pure and most efficient state, ground to any desired fineness. GEO. H. BARR & Co.,
March 1—mtf 53 Cortlandt-street, New-York.

Poudrette.

THE LODI MANUFACTURING CO. offer their Poudrette for sale in lots to suit purchasers, from one barrel up to 4,000 barrels, at their usual rates, viz. $1,50 per barrel for any quantity over seven barrels, delivered on board of vessels in the city of New-York free of cartage or other expense. When 200 to 300 barrels are taken, a deduction will be made from the above price. That this article has stood the test of 14 years' trial, is proof of its efficacy. It is the cheapest and best manure for corn ever produced, and it has the advantage of being useful in small quantities and harmless in large. It is a capital manure for peas, strawberries, &c., &c., and all garden vegetables.

Apply by letter or personally to the Lodi Manufacturing Co., 74 Courtland street, New-York.
Jan. 19—w4m—m4t

Peruvian Guano.

WE are receiving our supply of Peruvian Guano per ships Blanchard, Senator and Gray Feather from the Chincha Islands, and now prepared to make contracts for the spring supply. As the demand is large we would advise all who may be in want of this valuable manure to make early application. Price, $50 per ton of 2,000 pounds. Be particular to observe that every bag is branded,

Warranted No. 1 Peruvian Guano.

Imported into the United States by F. BARREDA, BROTHERS, for the Peruvian Government.

LONGETT & GRIFFING
State Agricultural Warehouse, No. 25 Cliff-street, New-York
Oct. 20th—w& mtf.

Pigs, Fowls, Rabbits and Pigeons.

SUFFOLK AND MIDDLESEX PIGS, Fancy Fowls, Lop-eared Rabbits, and Fancy Pigeons.—The subscriber has now for sale a choice assortment of the above animals, purely bred from *imported stock*, and warranted genuine. Address GEO. P. BURNHAM,
Box 22, Post-Office, Boston, Mass.
Boston, March 9, 1854—w5tm3t

Eggs for Hatching.

THE subscriber offers for sale, during the coming season, Brahma Pootra Eggs for hatching, at $4 per dozen, sent to any part of the United States or Canadas. Expenses paid to New-York, Albany or Boston.

My stock is inferior to none in the United States.

Any one purchasing Eggs of me, that is not pleased with the chicks in the fall, the money will be refunded.

Reference will be given if required.

DARIUS GARDNER,
Jan., 1854—m4t Norwich, Conn.

For Sale or Lease,

5,000 ACRES OF CHOICE FARMING LANDS in Gallatin county, Illinois, in the immediate vicinity of the extensive Mining operations of the Shawnee Coal Company. A cash market for all kinds of farm products at the mines. These lands will be sold or leased to good farmers on accommodating terms.

For particulars, apply to H H. CASEY, Sec'y,
Corner Hanover Square and Pearl street.
New-York, Feb. 1, 1854—m5t

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb. 1—m1y Braintree, Mass.

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Peruvian Lama and Vicuna,

FOR SALE, both male animals, in prime condition, just arrived from Peru. J. M. THORBURN & CO.,
April 20—w1t 15 John-street, New-York.

Ketchum's Mowers,

WITH the new improvements, for sale by
LONGETT & GRIFFING,
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Horse-Shoe Tile.

4½	inch caliber,	$18	per 1000 feet.
3½	do	15	do
2½	do	12	do

Sole Tile or Pipe.

3	inch caliber,	$18	per 1000 feet.
2	do	12	do

Large Tile for drains about dwellings, yards, &c., of various sizes, $4 and $8 per 100 feet. Sole Tile, 4 inch calibre, for sink drains at $4 per 100 feet. Drain your land and save your crops. Orders from a distance will receive prompt attention. A. S. BABCOCK.
Albany, April 20, 1854—w&m6m

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HICKOK'S CIDER MILL AND PRESS—This mill and press is conceded, by all who have seen and used it, to be the best—simple in construction, portable, weighing 275 lbs., and not liable to get out of order. Warranted to work well, and give satisfaction. The first premiums of the American Institute and Crystal Palace have been awarded to this machine. Price, $40. Drawings and descriptions will be sent by addressing the sole agents,
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25 Cliff-street, New-York.
May 1—n.s.—w2tnM,Ju,J,A,&4tnS

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"Emery's Patent Changeable Railroad Horse Powers."
Overshot Threshing Machines with Separators.
Mowing and Reaping Machines.
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Circular and Cross-cut Saw-mills, adapted to the horse power, for cutting fire wood and fence stuff, with a full and complete assortment of FIELD AND GARDEN SEEDS and FERTILIZERS. For further particulars, full Catalogue will be sent on application by mail.

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Also, large Tile for small brooks and drains about dwellings, &c. at from $4 to $8 per 100 pieces.

Tile delivered at the docks and railroads free of cartage. Specimens can be seen at Messrs. L. & W. MERCHANT's, 71 Quay-st.

Full directions for laying Tile will be sent free to those addressing the subscribers. Orders are respectfully solicited.
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BONE SAWINGS, OR MEAL, a very superior article, warranted pure. Price, $2,50 per barrel. Bone Dust, ground quite fine, $2,37 per barrel.

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Forbush's New Improved Combined Reaper and Mower.

THE above patent machine is now permanently established, and its entire success as a Combined Reaper and Mower proved beyond all doubt. This machine will be warranted to be made in a workmanlike manner and of the best materials, and capable of cutting from ten to fifteen acres of grass or grain per day, and in all respects to do the work as well and as easy for the horses as any other machine in the country.

Price of Combined Reaper and Mower, ... $135
" Mower, ... 115
For sale by LONGETT & GRIFFING,
No. 25 Cliff st., New-York.
April 6—w2ta&4tmay—m3t

Fowls and Eggs for Sale,

OF Brahma Pootra, Chittagong, White Shanghai, and Buff Shanghai varieties, choice, and of pure blood. Eggs for setting, by the subscriber.

FRANCIS W. COWLES.
Farmington, Ct., March 8, 1854.—Mar. 30—w1tm2t

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